

Serial No.: 09/429,331

REMARKS

In the Office Communication dated June 13, 2008, the U.S. Patent and Trademark Office (hereinafter "the Patent Office") contends that the application does not comply with the requirements of 37 CFR § 1.821 through 1.825 pertaining to patent applications containing nucleotide sequence and/or amino acid sequence disclosures. In particular, the Patent Office contends that the specification recites sequences in the specification without an assigned SEQ ID No.

In response, applicants respectfully submit that a Response to Sequence Listing Requirement was filed on February 20, 2001, followed by a Supplemental Response to Sequence Listing Requirement on February 27, 2001, in response to an Office Communication of December 5, 2000. Similar to the instant Office Communication, the Office Communication of December 5, 2000 also alleged that the instant application did not comply with the requirements of 37 CFR § 1.821 through 1.825. The responses of February 20, 2001 and February 27, 2001 included amendments to the specification to add SEQ ID NOs. as well as sequence listings, both on paper and in computer readable format. Applicants submit herewith copies of the previously filed responses, as downloaded from the Patent Office Patent Application Information Retrieval (PAIR) system.

As such, applicants respectfully submit that the previously filed responses of February 20, 2001 and February 27, 2001 are believed to address the alleged deficiencies in the specification set forth in the instant Office Communication. Accordingly, the instant application is believed to be in compliance with 37 CFR § 1.821 through 1.825.

Serial No.: 09/429,331

CONCLUSION

In light of the above remarks, it is respectfully submitted that the present application is now in proper condition for allowance, and an early notice to such effect is earnestly solicited.

If any small matter should remain outstanding after the Patent Examiner has had an opportunity to review the above remarks, the Patent Examiner is respectfully requested to telephone the undersigned patent attorney in order to resolve these matters and avoid the issuance of another Official Action.

DEPOSIT ACCOUNT

The Commissioner is hereby authorized to charge any additional fees associated with the filing of this correspondence to Deposit Account No. 23-1665.

Respectfully submitted,

WIGGIN and DANA LLP

Date: 21 July 2008

By: Todd E. Garabedian  
Todd E. Garabedian, Ph.D.  
Registration No. 39,197  
Attorney for Applicants

10706\86\2072453.1

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PRACTICE SUPERVISED BY  
PRINCIPALS OF THE FIRMTELEFAX CONTROL SHEET

SENT TO:

Carolyn

DATE SENT:

March 15, 2002

SUBJECT:

USSN- 09/429,331 Our Ref.: Page=11

No. of pages (including this cover sheet):

125

FROM:

Lisa Staley for Iver Cooper

Remarks:

Attached are the following:

- 1) 2/20/01 Response to Sequence Listing...  
and postcard receipt;
- 2) 2/27/01 Suppl. Resp. to Sequence Listing...  
and postcard receipt.

## CONFIDENTIALITY NOTE

This confidential facsimile message is intended only for the individual entity named above, and may contain information that is privileged and exempt from disclosure under applicable law. If you, the reader of this message, are not the intended recipient, or the employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that you should not copy this facsimile or distribute it to anyone other than the intended recipient. In addition, if you have received this telecopy in error, please immediately notify us by telephone or telefax and return the original message to us at the address above via the United States Postal Service. Finally, if it would not inconvenience you, we would appreciate it if you would first refax this message to the intended recipient. Thank you.

If this transmission is not well received, please advise us at our telecopier no. 202-737-3528 or by e-mail at mail@browdyneimark.com, or call our voice telephone no. 202-628-5197.

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of: PAIGE et al

Application No.: 09/429,331

Filed: October 28, 1999

For: METHOD OF PREDICTING THE ABILITY OF ...

Art Unit: 1627

Examiner: T. Wessendorf

Washington, D.C.

Atty's Docket: PAIGE-10

Date: February 20, 2001

THE COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

Sir:

Transmitted herewith is a ☐ Amendment ☒ Response to "Sequence Listing" Requirement with Sequence Listing and Disk and revised pages 239, 244-251, 266-268, 270, and 272.

in the above-identified application.

☐ Small Entity Status: Applicant(s) claim small entity status. See 37 C.F.R. §1.27.☐ No additional fee is required.☒ The fee has been calculated as shown below:

	(Col. 1)		(Col. 2)	(Col. 3)
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NO. PREVIOUSLY PAID FOR	PRESENT EXTRA EQUALS
TOTAL	*	MINUS	** 20	0
INDEP.	*	MINUS	--- 3	0
FIRST PRESENTATION OF MULTIPLE DEP. CLAIM				

SMALL ENTITY	
RATE	ADDITIONAL FEE
x 9	\$
x 40	\$
+ 135	\$
ADDITIONAL FEE TOTAL	
	\$

OTHER THAN SMALL ENTITY	
RATE	ADDITIONAL FEE
x 18	\$
x 80	\$
+ 270	\$
TOTAL	
	\$

- \* If the entry in Col. 1 is less than the entry in Col. 2, write "0" in Col. 3.
- \*\* If the "Highest Number Previously Paid for" IN THIS SPACE is less than 20, write "20" in this space.
- If the "Highest Number Previously Paid for" IN THIS SPACE is less than 3, write "3" in this space.

The "Highest Number Previously Paid For" (total or independent) is the highest number found from the equivalent box in Col. 1 of a prior amendment of the number of claims originally filed.

☒ Conditional Petition for Extension of Time

If any extension of time for a response is required, applicant requests that this be considered a petition therefor.

☒ It is hereby petitioned for an extension of time in accordance with 37 CFR 1.136(a). The appropriate fee required by 37 CFR 1.17 is calculated as shown below:Small Entity  
Response Filed Within

- ☐ First - \$ 55.00
- ☐ Second - \$ 185.00
- ☐ Third - \$ 445.00
- ☐ Fourth - \$ 695.00

Month After Time Period Set

Other Than Small Entity  
Response Filed Within

- ☐ First - \$ 110.00
- ☒ Second - \$ 390.00
- ☐ Third - \$ 890.00
- ☐ Fourth - \$ 1390.00

Month After Time Period Set

☐ Less fees (\$ ) already paid for month(s) extension of time on .☐ Please charge my Deposit Account No. 02-4035 in the amount of \$ .☒ Credit Card Payment Form, PTO-2038, is attached, authorizing payment in the amount of \$390.00.☐ A check in the amount of \$ is attached (check no. ).

☒ The Commissioner is hereby authorized and requested to charge any additional fees which may be required in connection with this application or credit any overpayment to Deposit Account No. 02-4035. This authorization and request is not limited to payment of all fees associated with this communication, including any Extension of Time fee, not covered by check or specific authorization, but is also intended to include all fees for the presentation of extra claims under 37 CFR §1.18 and all patent processing fees under 37 CFR §1.17 throughout the prosecution of the case. This blanket authorization does not include patent issue fees under 37 CFR §1.18.

BROWDY AND NEWMARK

Attorneys for Applicant(s)



Iver P. Cooper  
Registration No. 28,005

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(N/A)

APPLICANT(S): PAIGE et al

APPLICATION NO: 09/429,331

THE PATENT AND TRADEMARK OFFICE STAMP  
HEREON ACKNOWLEDGES RECEIPT OF THE  
FOLLOWING PAPERS:

- ☒ FEES \$ 390.00
- ☒ PTO FORM 2038 ☐ (CH. # \_\_\_\_\_)
- ☒ EXTENSION OF TIME ( 2 MONTHS)
- ☒ TRANSMITTAL LETTER
- ☐ MISSING PARTS RESPONSE WITH DECL
- ☐ AMENDMENT
- ☐ PRELIMINARY ☐ SUPPLEMENTAL
- ☒ REPLY TO OFFICE ACTION
- ☐ RESTRICTION/ELECTION REPLY
- ☒ SEQUENCE LISTING ☒ WITH DISK
- ☐ RCE / CPA TRANSMITTAL (circle one)
- ☐ NOTICE OF APPEAL
- ☐ APPEAL BRIEF (TRIPLICATE)
- ☐ REPLY BRIEF (TRIPLICATE)
- ☒ OTHER revised pages 239, 244-251, 266-268, 270 and 272;  
copy of Notice to Comply

B&N-2

DOCKET NO.: PAIGE-1D

CONF NO: \_\_\_\_\_

RECEIVED  
MAR 15 2002  
CIPD 20 PM 3:00

- ☐ ASSIGNMENT
- ☐ INFORMATION DISCLOSURE STATEMENT
- ☐ FORM 1449 & \_\_\_\_\_ PATENTS/PUBS
- ☐ PRIORITY DOCUMENT(S) NO. \_\_\_\_\_
- ☐ DECLARATION UNDER § \_\_\_\_\_
- ☐ LETTER TO DRAFTSMAN
- ☐ \_\_\_\_\_ SHEETS OF DRAWINGS
- ☐ ISSUE FEE TRANSMITTAL FORM
- ☐ MAINTENANCE FEE LETTER

HAND-CARRY

Application No.: 09/429331**NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):

- ☒ 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to these regulations, published at 114 OG 29, May 15, 1990 and at 55 FR 18230, May 1, 1990.
- ☒ 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).
- ☒ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).
- ☐ 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked-up "Raw Sequence Listing."
- ☐ 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).
- ☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).
- ☐ 7. Other: \_\_\_\_\_

**Applicant Must Provide:**

- ☒ An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".
- ☒ An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification.
- ☒ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).

For questions regarding compliance to these requirements, please contact:

For Rules Interpretation, call (703) 308-4216

For CRF Submission Help, call (703) 308-4212

For PatentIn software help, call (703) 308-6856

PLEASE RETURN A COPY OF THIS NOTICE WITH YOUR RESPONSE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	ART UNIT: 1627
	)	
PAIGE et al	)	Examiner: T. Wessendorf
	)	
Appln. No.: 09/429,331	)	Washington, D.C.
	)	
Filed: October 28, 1999	)	February 20, 2001
	)	
For: METHOD OF PREDICTING THE	)	Atty.Docket: PAIGE=1D
ABILITY OF COMPOUNDS TO	)	
MODULATE THE BIOLOGICAL	)	
ACTIVITY OF RECEPTORS	)	

RESPONSE TO "SEQUENCE LISTING" REQUIREMENT

Honorable Commissioner of Patents  
Washington, D.C. 20231

Sir:

In response to the Notice to Comply, mailed December 5, 2000, petition for a two-month extension of time and payment of late fees attached hereto, please amend the application as follows:

IN THE SPECIFICATION

Page 132, line 14, before "biotin" insert

--(SEQ ID NO:1)--.

Page 136, line 26, after "...CTGCG" insert

--(SEQ ID NO:3)--;

line 27, after "...ACCTA" insert

--(SEQ ID NO:4)--.

In re Appln. NO. 09/429,331

Page 150, line 22, after "...GTCAG" insert

--(SEQ ID NO:5)--;

line 25, after "...GTCAG" insert

--(SEQ ID NO:6)--;

line 28, after "...GTCAG" insert

--(SEQ ID NO:7)--;

line 31, after "...GTCAG" insert

--(SEQ ID NO:8)--;

line 33, after "...TCGAG" insert

--(SEQ ID NO:9)--.

Page 162, line 33, after "...CAGT-3'" insert

--(SEQ ID NO:14)--;

line 36, after "...TAGA-3'" insert

--(SEQ ID NO:15)--.

Page 173, line 26, after "...SLLSR" insert

--(SEQ ID NO:187)--.

Page 183, line 6, after "SRLXXLL" insert

--(SEQ ID NO:2)--.

Page 225, line 4, after "...KQAV" insert

--(SEQ ID NO:10)--;

line 5, after "...GVSR" insert

--(SEQ ID NO:11)--;

line 6, after "...MLSR" insert

--(SEQ ID NO:12)--;

line 7, after "...YASR" insert

In re Appln. No. 09/429,331

--(SEQ ID NO:13)--.

Page 238, line 2, after "...GHSR" insert

--(SEQ ID NO:59)--;

line 3, after "...WRSR" insert

--(SEQ ID NO:60)--;

line 4, after "...KDSR" insert

--(SEQ ID NO:61)--.

Attached are copies of pages 239, 244-251, 266-268, 270, and 272 in which sequence identifiers are marked in red. Entry of these revisions is respectfully requested.

Please enter the enclosed "Sequence Listing", pages 1-79.

#### REMARKS

1. Applicants hereby submit the following:
  - [XX] a paper copy of a "Sequence Listing", complying with §1.821(c), to be incorporated into the specification as directed above;
  - [ ] an amendment to the paper copy of the "Sequence Listing" submitted on , the amendment being in the form of substitute sheets;

In re Appln. No. 09/429,331

[XX] the Sequence Listing in computer readable form, complying with §1.821(e) and §1.824, including, if an amendment to the paper copy is submitted, all previously submitted data with the amendment incorporated therein;

[ ] pursuant to §1.821(e), reference is made to the computer readable form filed on , in USSN , which presents the identical Sequence information, the use of which is now requested, in lieu of submitting a new computer readable form; and/or

[ ] a substitute computer readable form to replace one found to be damaged or unreadable.

[XX] 2. The description has been amended to comply with §1.821(d).

3. The undersigned attorney or agent hereby states as follows:

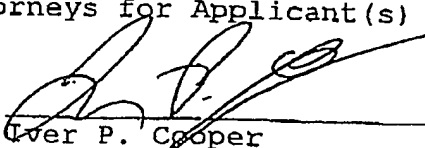
(a) this submission is not believed to include new matter [§1.821(g)];

- (b) the contents of the paper copy (as amended, if applicable) and the computer readable form of the Sequence Listing, are believed to be the same [\$1.821(f) and \$1.825(b)];
- (c) if the paper copy has been amended, the amendment is believed to be supported by the specification and is not believed to include new matter [\$1.825(a)]; and
- (d) if the computer readable form submitted herewith is a substitute for a form found upon receipt by the PTO to be damaged or unreadable, that the substitute data is believed to be identical to that originally filed [\$1.825(d)].

Respectfully submitted,

BROWDY AND NEIMARK  
Attorneys for Applicant(s)

By:

  
Peter P. Cooper  
Registration No. 28,005

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Facsimile No.: (202) 737-3528  
F:\,N\Nova\PaigeID\PTO\SequenceResponse.doc

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Table 3: Phage/Peptide Classification

		<u>Seq ID</u>	<u># and isolation method</u>
<u>Class 1</u>			
5	S S N H Q S S R L I E L L S R	62	#4 ER + estradiol
	S R L K E L L L L P T D L S R	63	#15 ER + estradiol
	S S K L Y C L L D E S Y C S R	64	#35 ER + estradiol
	H G P L T L N L L R S S G G	65	#41 ER + estradiol
	S R L E Y W L K W E P G P S R	66	#12 ER + estradiol

<u>Class 2</u>			
10	S S C K W Y E K C S G L W S R	67	#7 ER
	S S E Y C F Y W D S A H C S R	68	#33 ER + estradiol
	S S W V L L R D L P W G S R	69	#31 ER
	S S W V R L S D F P W G V S R	70	#24 ER + estradiol

<u>Class 3</u>			
15	S S L T S R D F G S W Y A S R	71	#5 ER + estradiol

<u>Class 4</u>			
15	S R T W E S P L G T W E W S R	72	#13 ER

<u>Class 5</u>			
	S A A C A T I S H Y L M G G	73	#48 ER

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Table 7: New  $\alpha$  Peptide Sequences Immobilized on Plastic

Peptide name	Sequence	No	Isolated in the presence of receptor form	SERM present when peptide was identified
1PT	SRNLCFFWDDEYCSR	74	$\alpha$	Tamoxifen & ICI 182,780
2PT	SWDMHQFFWEGVSR	75	$\alpha$	Tamoxifen
3PT	SRWHGTLFWQDEQSR	76	$\alpha$	Tamoxifen
4PT	SSCKWYEKCSGLWSR	77	$\alpha$	Tamoxifen & ICI 182,780
5PT	SSRMGHVWYDWTFSR	78	$\alpha$	Tamoxifen
6PT	SSRLLGDFGGSVVS	79	$\alpha$	Tamoxifen
7PT	SSKYVFGFQVAGGSR	80	$\alpha$	Tamoxifen
8PT	SSWAGIKFGKPPHSR	81	$\alpha$	Tamoxifen
9PT	SSWSYSGKPTFLSSR	82	$\alpha$	Tamoxifen
10PT	SRDTGDMWNGRGSR	83	$\alpha$	Tamoxifen
11PT	SSGRYDPFVLNAASR	84	$\alpha$	Tamoxifen
12PT	SSSPWSPFNLRDMSR	85	$\alpha$	Tamoxifen
13PT	SSWPYLPKREWASR	86	$\alpha$	Tamoxifen
14PT	SSGWIEQKLRGSFSR	87	$\alpha$	Tamoxifen
15PT	SSSATSIVQVQISR	88	$\alpha$	Tamoxifen
16PT	SSYLTIGKSMWASR	89	$\alpha$	Tamoxifen
17PT	SSWHSRWDALGFSSR	90	$\alpha$	Tamoxifen
18PT	SSGYWGGWDYGAGSR	91	$\alpha$	Tamoxifen
19PT	SRDNCGAGLWAGCSR	92	$\alpha$	Tamoxifen
1PI	SSSTPGWWDWASR	93	$\alpha$	Tamoxifen
2PI	SSYWDGSGWRKTCVCSR	94	$\alpha$	ICI 182,780
3PI	SSRTAEDYCFADYWC	95	$\alpha$	ICI 182,780
4PI	SSRALALFPVGMESR	96	$\alpha$	ICI 182,780
5PI	SSDCESLTSYPHLKALCSR	97	$\alpha$	ICI 182,780
6PI	SSTATALRDLAYS	98	$\alpha$	ICI 182,780
7PI	SSGKTREHYREGTSR	99	$\alpha$	ICI 182,780

5

10

15

20

25

245

Table 8: New ERα-ERE Peptide Sequence Information

peptide name	Peptide Sequence	Isolat ed in the presence of receptor form	SERM present when peptide was identified
E1-1	HSNNHSPWLFRLGG 100	α	Estradiol
E1-3	HSHPHSHLLYKLMGG 101	α	Estradiol
E1-4	HSHPPLPLLSRLTGG 102	α	Estradiol
E1-7	SRLTCLLQSNQWDSEQCSR 103	α	Estradiol
I4-10	SSLTSRDFGSHVYASR 104	α	ICI
T3-1	SRTLQLDNGTLYSR 105	α	Tamoxifen
T1-10	SRLPPSVFSCMGSEVCLSR 106	α	Tamoxifen
T2-10	SRFEIWKPEPGCVSSLENWE 107	α	Tamoxifen
	PGKRVCSR 108	α	Tamoxifen
	SRVFGVSGGEVVLINGSSR 109	α	Raloxifen
	SRLCFGDWCMGLGGVDVLSR 110	α	Raloxifen
	SSLNMVVDTPWCGKVVCSR 111	α	Buffer
	SSRPDAARFFGAKLSR 112	α	Buffer
	SSRPSPSPNEKQLSR 113	α	Buffer
	SSRPTAENFRENLSR 114	α	Buffer
	SRWWDTSWVLELSR 115	α	Buffer
	SSRIADLFWRLPSR 116	α	Buffer
	SRSYHGEWGVNTLSR 117	α	Buffer
	SSDWCFGWGGWCASEAVSR 118	α	Estradiol
	SRNWDWAALELLPYHPFSR 119	α	Estradiol
	SSLTSRDFGSHVYASR 120	α	Estradiol
	SRSPIILTHLLSLCSR 121	α	Estradiol
	SSTGILWKLTAESR 122	α	Estradiol
	SSHGILWRLLESGSR 123	α	Estradiol
	SRSDSLWRLMLSESR 124	α	Estradiol
	SRLVALLKSPWVSRSR 125	α	Estradiol
	SRLEELLMLDFWRSR 126	α	Estradiol
	SSKLMQLLSSPIDSR 127	α	Estradiol
	SSKLYCLLDESYSR 128	α	Estradiol
	SSKLYCLLDESYSR 129	α	Estradiol
	SSKLYCLLDESYSR 130	α	Estradiol
	SSKLYCLLDESYSR 131	α	Estradiol
	SSKLYCLLDESYSR 132	α	Estradiol
	SSKLYCLLDESYSR 133	α	Estradiol
	SSKLYCLLDESYSR 134	α	Estradiol
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	SSKLYCLLDESYSR 138	α	Estradiol
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	SSKLYCLLDESYSR 207	α	Estradiol
	SSKLYCLLDESYSR 208	α	Estradiol
	SSKLYCLLDESYSR 209	α	Estradiol
	SSKLYCLLDESYSR 210	α	Estradiol
	SSKLYCLLDESYSR 211	α	Estradiol
	SSKLYCLLDESYSR 212	α	Estradiol
	SSKLYCLLDESYSR 213	α	Estradiol
	SSKLYCLLDESYSR 214	α	Estradiol
	SSKLYCLLDESYSR 215	α	Estradiol
	SSKLYCLLDESYSR 216	α	Estradiol
	SSKLYCLLDESYSR 217	α	Estradiol
	SSKLYCLLDESYSR 218	α	Estradiol
	SSKLYCLLDESYSR 219	α	Estradiol
	SSKLYCLLDESYSR 220	α	Estradiol
	SSKLYCLLDESYSR 221	α	Estradiol
	SSKLYCLLDESYSR 222	α	Estradiol
	SSKLYCLLDESYSR 223	α	Estradiol
	SSKLYCLLDESYSR 224	α	Estradiol
	SSKLYCLLDESYSR 225	α	Estradiol
	SSKLYCLLDESYSR 226	α	Estradiol
	SSKLYCLLDESYSR 227	α	Estradiol
	SSKLYCLLDESYSR 228	α	Estradiol
	SSKLYCLLDESYSR 229	α	Estradiol
	SSKLYCLLDESYSR 230	α	Estradiol
	SSKLYCLLDESYSR 231	α	Estradiol
	SSKLYCLLDESYSR 232	α	Estradiol
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	SSKLYCLLDESYSR 238	α	Estradiol
	SSKLYCLLDESYSR 239	α	Estradiol
	SSKLYCLLDESYSR 240	α	Estradiol
	SSKLYCLLDESYSR 241	α	Estradiol
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	SSKLYCLLDESYSR 246	α	Estradiol
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	SSKLYCLLDESYSR 274	α	Estradiol
	SSKLYCLLDESYSR 275	α	Estradiol
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	SSKLYCLLDESYSR 278	α	Estradiol
	SSKLYCLLDESYSR 279	α	Estradiol
	SSKLYCLLDESYSR 280	α	Estradiol
	SSKLYCLLDESYSR 281	α	Estradiol
	SSKLYCLLDESYSR 282	α	Estradiol
	SSKLYCLLDESYSR 283	α	Estradiol
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	SSKLYCLLDESYSR 295	α	Estradiol
	SSKLYCLLDESYSR 296	α	Estradiol
	SSKLYCLLDESYSR 297	α	Estradiol
	SSKLYCLLDESYSR 298	α	Estradiol
	SSKLYCLLDESYSR 299	α	Estradiol
	SSKLYCLLDESYSR 300	α	Estradiol

246 Estradiol  
 α Estradiol  
 α Estradiol  
 α Estradiol  
 α Estradiol  
 α Estradiol  
 α Estradiol  
 α Estradiol  
 α Estradiol

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 SSRLLACELMYEDADVCSR 124  
 HSHSPLLMALLAPPGG 130  
 SRLEYLLRLGTYESR 131  
 SSCLREILLYGACSR 132  
 SSRTAEDYCFEADDYWCSSR 133  
 SSLRCYLSSSKVDQWACSR 134  
 SSYKPHSLLEWHLLGGTSR 135

7E  
 8E  
 15E  
 10E  
 13E  
 16E  
 17E  
 18E

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Table 9: New ER $\beta$ -ERE Peptide Sequence Information		Isolated		SERM	
Peptide name	Peptide Sequence ID No.	in the presence of receptor form	present when peptide was identified	Buffer	Buffer
1B- $\beta$	SRLHCLLDSSYCSSR 136	$\beta$	Buffer	Buffer	Buffer
2B- $\beta$	SRLHCLLDSSYCSSR 137	$\beta$	Buffer	Buffer	Buffer
3B- $\beta$	SSWPNPTFWERQLSR 138	$\beta$	Buffer	Buffer	Buffer
4B- $\beta$	SYSKEWFEERLNSR 139	$\beta$	Buffer	Buffer	Buffer
5B- $\beta$	SSMMREFFERELSR 140	$\beta$	Buffer	Buffer	Buffer
6B- $\beta$	SSGLPPNFERMLKSR 141	$\beta$	Buffer	Buffer	Buffer
7B- $\beta$	SSGPWLMHYLGGGSR 142	$\beta$	Buffer	Buffer	Buffer
8B- $\beta$	SSTSWLHHYLMGTSR 143	$\beta$	Buffer	Buffer	Buffer
9B- $\beta$	SRGGECGLPWCLSR 144	$\beta$	Buffer	Buffer	Buffer
10B- $\beta$	SSEACVGRWMLCEQLGVSR 145	$\beta$	Buffer	Buffer	Buffer
11B- $\beta$	SSQVWRGPWRLVESR 146	$\beta$	Buffer	Buffer	Buffer
12B- $\beta$	SSSLGPWRLSLEESR 147	$\beta$	Buffer	Buffer	Buffer
13B- $\beta$	SSSQPWRWOLSESR 148	$\beta$	Buffer	Buffer	Buffer
14B- $\beta$	SRECVGGWCLAEELSR 149	$\beta$	Buffer	Buffer	Buffer
15B- $\beta$	SSIPPRSWWLSQLSR 150	$\beta$	Buffer	Buffer	Buffer
16B- $\beta$	SSWPGAEWFKEQLSR 151	$\beta$	Buffer	Buffer	Buffer
17B- $\beta$	SSKLYCLLDSEYCSR 152	$\beta$	Buffer	Buffer	Buffer
18B- $\beta$	HSYSSHPLLSSYLWGG 153	$\beta$	Buffer	Buffer	Buffer
19B- $\beta$	HSVVLGPWRLLSSIDLGG 154	$\beta$	Buffer	Buffer	Buffer
20B- $\beta$					
21B- $\beta$					
22B- $\beta$					
23B- $\beta$					
24B- $\beta$					



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2E-β	SRHGILWDLQDGR 177	β	Estradiol
3E-β	SRLHDLRLRDESPR 178	β	Estradiol
4E-β	SRDWRSGFLYELLR 179	β	Estradiol
5E-β	SSDTRSRLYELLSSSYTSR 180	β	Estradiol
6E-β	SRLEELLRVGVLTSR 181	β	Estradiol
7E-β	SRLEDLLRGDSKPQSR 182	β	Estradiol
8E-β	SSPTCHRLLESLLNSNSR 183	β	Estradiol
9E-β	SSILERLLGGGAETV 184	β	Estradiol
10E-β	SRSPILWHLLQDGR 185	β	Estradiol
11E-β	SSRTPILFSLLETSR 186	β	Estradiol
12E-β	SSIKDFPNLISLLR 187	β	Estradiol
13E-β	SSGSSAGRLMMLLQDGVSR 188	β	Estradiol
14E-β	SREGLLMRLIGDSR 189	β	Estradiol
15E-β	SSHCHTRLCSLTSLR 190	β	Estradiol
16E-β	SSRLCLLDAGQCSR 191	β	Estradiol
17E-β	SRNLLCLLDQEACSR 192	β	Estradiol
18E-β	SSLKCLLNSNFCR 193	β	Estradiol
19E-β	SSLKCLLQSSPQKQFCR 194	β	Estradiol
20E-β	SSRFLLEHYLLGGR 195	β	Estradiol
21E-β	SSAGLLEDMLRSR 196	β	Estradiol
22E-β	SSRCSSLLCEMLIQTKESR 197	β	Estradiol
23E-β	SSLQAGSWLMLHYLRGGDSR 198	β	Estradiol

250.

24E-β	SRREGSSWLLHYLSR 199	β	Estradiol
25E-β	SSRTLLEHYLLGSR 200	β	Estradiol
26E-β	SRWVWDDHIELLYSSR 201	β	Estradiol
27E-β	SSRTLYCHLTSSNPEWCSR 202	β	Estradiol
28E-β	SSTRLMCWLGSDTSHCSR 203	β	Estradiol
29E-β	SSYDWQCPSWYCPAPPSSR 204	β	Estradiol
30E-β	SSTTWRCPEWYCGSR 205	β	Estradiol
31E-β	SSWDFRVPWWYNNSR 206	β	Estradiol
32E-β	SSQWQAPWWYIDASR 207	β	Estradiol
33E-β	SSRPSFTIPWWFDDPSRSR 208	β	Estradiol
34E-β	SSYEIPKVALQWLSR 209	β	Estradiol
35E-β	SSLDLSQFPMTASFLESR 210	β	Estradiol

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Table 10: Panel Peptides for Example 2

$\alpha/\beta$  I, SSNHQSSRLJELLSR (AB1) [17 $\beta$ -estradiol] (SEQ ID NO: 211)  
 $\alpha/\beta$  II, SAPRATISHYLMGG (AB2) [no modulator] (SEQ ID NO: 212)  
 $\alpha/\beta$  III, SSWDMHQFFWEGVSR (AB3) [4-OH tamoxifen] (SEQ ID NO: 213)  
 $\alpha/\beta$  IV, SRLPPSVFSMCGSEVCLSR (AB4) [same] (SEQ ID NO: 214)  
 $\alpha/\beta$  V, SSPGSRKFWFKDMLSR (AB5) [same] (SEQ ID NO: 215)  
 $\alpha/\beta$  VI, SSFCYFYWDSAHCSR (A1) [17 $\beta$ -estradiol] (SEQ ID NO: 216)  
 $\alpha$  I, SSEYCFYWDSAHCSR (A1) [17 $\beta$ -estradiol] (SEQ ID NO: 217)  
 $\alpha$  II, SSLTSRDFGSVYASR (A2) [17 $\beta$ -estradiol] (SEQ ID NO: 218)  
 $\alpha$  III, SRTWESPLGTWVSR (A3) [no modulator] (SEQ ID NO: 219)  
 $\beta$  I, SREWEDGFGGRWLSR (B1) [4-OH tamoxifen] (SEQ ID NO: 220)  
 $\beta$  II, SSLLSQFPMTASFLRESR (B2) [17 $\beta$ -estradiol] (SEQ ID NO: 221)  
 $\beta$  III, SSEACVGRWMLCEQLGVS. (B3) [no modulator] (SEQ ID NO: 222)

Alternative name parenthesized. Modulator used to isolate peptide in brackets.

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Seq ID NO:

Table 100		S R A G L L S D L L E G K S R	222
A		S S R S L L R D L L M V D S R	223
		S S N K L L Y N L L K M E S R	224
		S S K S L L L N L L S T P S R	225
5	H S F P R E	S S L L V R L L Q G G	226
		S R L E M L L R S E T D F S R	227
		S R L E E L L K W G S V T S R	228
		S R L E Q L L K E E F S Y S R	229
10		S R L E Q L L R S E P D F S R	230
		S R L E D L L R A P F T T S R	231
		S R L E S L L R F G Q L D S R	232
		S S R L L S L L V G D F N S R	233
15		S S R L E E L L L G T N R D S R	234
		S R L E E L L L M D F W R S R	235
		S R L K E L L L L P T D L S R	236
		S R L E C L L E G R L N C S R	237
20		S S K L Y C L L D E S Y C S R	238
		S R L S C L L M G F E D C S R	239
		S S K L I R L L T S D E E L S R	240
		S S R L M E L L Q E G Q G W S R	241
25	S S N H Q	S S R L I E L L S R	242
		S S R L W Q L L A S T D T S R	243
		S S K L W Q L L S S P I D S R	244
		S R L V A L L K S P W S V S R	245
30		S S N S M L W K L L A A P S R	246
		S S K T L W R L L E G E R S R	247
		S R A G P V L W G L L S E S R	248
		S R S P I L T H L L S L G S R	249
		S S T G I L W K L L T A E S R	250
		S S H G I L W R L L S E G S R	251
B		K L V Q L L T T T A E	252
35	SRC1a	I L H R L L Q E G S P	253
		L L R Y L L D K D E K	254
		L L Q Q L L T E	255
		Q L S E L L R G G S G	256
40	CBP	Q L V L L L H A H K C	257
		Y L E G L L M H Q A A	258
		L L A S L L Q S E S S	259
		H L K T L L K K S K V	260
45	RIP140	Q L A L L L S S E A H	261
		L L L H L L K S Q T I	262
		L L Q L L L G H K N E	263
		V L Q L L L G N P K G	264
		L L S R L L R Q N Q D	265
		V L K Q L L L S E N C	266

SRC1a = human steroid receptor coactivator 1a,  
 CBP = mouse cAMP-responsive element (CREB)-binding

50 protien,  
 RIP 140 = human RIP140

267

Table 101

SEQ ID NO:Class I

ER4 SSNHQSRLIELLSR 267  
 D2 GSEPKSRLLELLSAPVTDV 280  
 D30 HPTHSSRLWELLMEATPTM 281  
 D11 VESGSSRLMQLLMANDLLT 282

Class II

D47 HVYQHPLLLSLLSSEHESG 268  
 C33 HVEMHPLLMLLMESQWGA 269  
 D14 QEAHGPLLWNLLSRSDTDW 270

Class III

F6 GHEPLTLERLLMDDKQAV 271  
 D22 LPYEGSLLLKLLRAPVEEV 272  
 D48 SGWENSILYSLLSDRVSLD 273  
 D43 AHGESSLLAWLLSGEYSSA 274  
 D17 GVFCDSILCQLLAHDNARL 275  
 D41 HHNGHSILYGLLAGSDAPS 276  
 D26 LGERASLLDMLLRQENPAW 277  
 D40 SGWNESTLYRLLQADAFDV 278  
 D15 PSGGSSVLEYLLTHDTSIL 279  
 F4 PVGEPQLLWRLLSAPVERE 284

Misc.

D10 WEEHSQMLLHLLDTGEAVW6 283

ERβsp.

#293 SSIKDFPNLISLLSR 187

25 GRIP-1

NR1 DSKGQTKLLQLLTTKSDQM 16  
 NR2 LKEKHKILHQLLQDSSSPV 17  
 NR3 KKKENALLRYLLDKDDTKD 18

SRC-1

NR1 YSQTSHKLVKLLTTTAEQQ 19  
 NR2 LTARHKILHRLLOEGSPSD 20  
 NR3 ESKDHQLLRYLLDKDEKDL 21

30

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Table 202A: Gic1 GDP/GTPγS-Independent Phage (I-Peptides)			
ID	Sequence/Motif Aligned	Seq. Lig	Library
99	SRAHLLTWSEFLDSHTK	22 BUF	E
103	SSGELITWYEFLGDLNP	23 BUF	E
5 107	SRGELTTWYEFLSHGRP	24 BUF	K
361	DELTWWEFISD	25 GTP	CWL
388,391	VTWYDFLMEDTK	26 GTP	R
45	GLMTWREFLQE	27 BUF	Y
397,401,412	NLMTWYEYLADGERL	28 GTP	PHD12
10 15r2,301,394	ADRLWTWQEFly	29 BUF	N
380,381,140	KTYSlyEFLEL	30 GTP	H
16	SSQLLTLHEFLNS	31 BUF	
360	SSRGEYWWEFLGYSR	32	
101	SSADGIFWWEYAREAGE	33 BUF	
15 375,123,125,247	LGRGTTDMPPWAWWS	34 GTP	
331,334	NYTERPWVWYH	35 GDP	
37	SSLYSMEPWKWT	36 BUF	
387	KWESDWFVNFG	37 GTP	
386	EEGMDWFMRVVE	38 GTP	

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Table 202B: Giα1 GTP-Specific Phage  
(T-Peptides)

		Seq ID NO.		
	SVLSSEMCFGWACY	39	GTP	M
370,377,378	SEMCFGWACY	40	GDP	<u>PARO</u>
244	FNEVCLGWQCY	41	GTP	K
5 366,G12	SSNARPCQGWHCYLPSQSR	42		
G33,G34				
	WDGGVWMGPAS	43	GTP	K
353	MGDSVLPYGGVWLGP	44	GTP	Y
408	SRYGGVWLGPPEGNSR	45		
G22,G25	SSWDGGVWWGQYGSR	46		
10 G11,G26-29	SSNLDGCFTSGGVWSGCSR	47		
G9,G10	LGVDINGVWIG	48	GTP	N
382				
	ICDIIPWEESCSR	49	GTP	P
384	ACGPAICPWDFMPQL	50	GTP	<u>PARO</u>
413				

- 15 Note: clone 244, which was identified in a screen for peptide which bound GDP:G-alpha, is suspected to having increased the affinity of the G-alpha for GTP through a conformational change.

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Table 202C: Giα1 GDP-Specific Phage  
(D-Peptides)

		<u>Seq ID#</u>			
	SRGPQLTWQEFLLTGAASSR	51			
G4	NVVTWWEFLGP	52	GDP		
314	SREFVTWKEFLGS	53	BUF	K	
5 73	SQLTWREFLFG	54	GDP	R	
343	SSHLMTWHEFISD	55	GDP	H	
217	SRDGFETWAEFLGASGS	56	BUF		
93	SRLTWSEYLSIDP	57	BUF	CWL	
62	SRTVTWVDFLKET	58	GDP	D	
10 193	MSWYEFMTTEESM	285	GDP	CWI	
324	AKHDLWSYEFLLQLP	286	GTP	V	
400	SRLSWWEFLGASDCGTC	287	GDP	X14C<W>	
281	DLLSLKEFLAT	288	GTP	K	
359,161	SSPNLLTLEEFLLS	289	GDP	L	
15 176	KTYSLYEFLEL	290	GTP	N	
380,381,140	MSNRYTIYEFLLNLHS	291	GTP	Y	
409,242	LHWWEVLAEK	292	GDP	CWL	
320	SSPQPLLHWWENMTTEPP	293	GDP	KNK	
230	SRAGESVHWWEVL	294	GDP	H	
20 213	RAGPSEHWWEYIATL	295	GDP	N	
266	EMISWHQYLLSIENN	296	GDP	PARO	
237	SSLRWDEFLMELGGGVA	297	BUF	M	
126,128,133,242,248	VPWWVWLAEGD	298	GTP	N	
379	SREIYWWDWLTD	299	GDP	D	
25 196	FGSNMLDLPTFLDWL	300	BUF	PARO	
117	SRITFWELMLEGG	301	BUF	L	
92	SRTPYEWLGYWGA	302	GDP	L	
179					
	YDMCTWLEFLDGGEC	303	GDP	X14CW	
289	SPLCTWAEYLMPEPSC	304	GDP	N	
30 265	TQWCTWAEFLSSTDC	305	GDP	M	
273	SSDGCTWQEFLLAGHGPC	306	GDP	N	
272,282,6R2					
	PFNNPPWMWWS	307	GDP	P	
337,339	SSPTVHENLPPWLWWSP	308	GDP	N	
268	LIHVPPWAWYD	309	GDP	P	
35 330	GFDVPPWYWDF	310	GDP	P	
329	YSQVFGDAPVWAWYSSR	311	GDP	X14CW	
280	WTPSDWQWWSK	312	GDP	CWL	
319	SSHWSSDSIFPGFWYSG	313	BUF	PARO	
115					
	SRGGVDLDIGNSA	314	GDP	D	
40 197	EGEDVRIAN	315	GDP	R	
347					

## SEQUENCE LISTING

<110> PAIGE, Lisa A.  
MCDONNELL, Donald P.  
CHANG, Ching Yu  
NORRIS, John  
HAMILTON, Paul T.  
FOWLKES, Dana M.  
BARNETT, Tom  
CHRISTIANSEN, Dale J.  
BUEHRER, Benjamin

<120> METHOD OF PREDICTING THE ABILITY OF COMPOUNDS TO  
MODULATE THE BIOLOGICAL ACTIVITY OF RECEPTORS

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<140> 09/429,331

<141> 1999-10-28

<150> PCT/US99/06664

<151> 1999-03-26

<150> 60/082,756

<151> 1998-04-23

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<151> 1998-09-09

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<151> 1999-01-08

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1 5 10 15

Gly Ser Gly Lys  
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<210> 2

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<212> PRT

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 peptide  
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<400> 2  
 Ser Arg Leu Leu Xaa Xaa Leu Leu  
 1 5

<210> 3  
 <211> 23  
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<400> 3  
 gatctaggtc acagtgaact gcg 23

<210> 4  
 <211> 23  
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 <213> Xenopus laevis

<400> 4  
 gatccgcagg tcactgtgac cta 23

<210> 5  
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 <212> DNA  
 <213> Artificial Sequence

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 <223> Description of Artificial: Selected sequence from  
 combinatorial library

<400> 5  
 gactgtgcga attcgggtcat gaaccattaa ctttattaga aagattatta atggatgata 60  
 aacaagctgt tctcgagcgt gtcag 85

<210> 6  
 <211> 73  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial: Selected sequence from  
 combinatorial library

<400> 6  
 gactgtgcga attctcttct ttaacttcta gagattttgg ttcttggtat gcttctagac 60  
 tegagcgtgt cag 73

<210> 7  
 <211> 73  
 <212> DNA  
 <213> Artificial Sequence

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 <223> Description of Artificial: Selected sequence from  
 combinatorial library

<400> 7  
 gactgtgcga attctcttct tgggatatgc atcaattttt ttgggaaggt gtttctagac 60  
 tcgagcgtgt cag 73

<210> 8  
 <211> 73  
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 <213> Artificial Sequence

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 <223> Description of Artificial: Selected sequence from  
 combinatorial library

<400> 8  
 gactgtgcga attctcttct ccagggttcta gagaatgggt taaagatatg ttatctagac 60  
 tcgagcgtgt cag 73

<210> 9  
 <211> 14  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial: Selected sequence from  
 combinatorial library

<400> 9  
 ctgacacgct cgag 14

<210> 10  
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 peptide

<400> 10  
 Gly His Glu Pro Leu Thr Leu Leu Glu Arg Leu Leu Met Asp Asp Lys  
 1 5 10 15

Gln Ala Val

<210> 11  
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 <213> Artificial Sequence

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 <223> Description of Artificial Sequence:Arbitrary  
 peptide

<400> 11  
Ser Ser Trp Asp Met His Gln Phe Phe Trp Glu Gly Val Ser Arg  
1 5 10 15

<210> 12  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 12  
Ser Ser Pro Gly Ser Arg Glu Trp Phe Lys Asp Met Leu Ser Arg  
1 5 10 15

<210> 13  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 13  
Ser Ser Leu Thr Ser Arg Asp Phe Gly Ser Trp Tyr Ala Ser Arg  
1 5 10 15

<210> 14  
<211> 88  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:DNA encoding random  
peptide library of Ex. 101.1

<220>  
<223> N at each occurrence is A, C, G or T; K at each  
occurrence is C or T

<400> 14  
agtgtgtgcc tcgagannkn nknknknkn knknknkctg nnknknkctgc tgnknknkn 60  
knknknknkn nktctagac tgtgcagt 88

<210> 15  
<211> 15  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:DNA complementing  
3' end of SEQ ID NO:14

<400> 15  
actgcacagt ctaga

.15

<210> 16  
<211> 19  
<212> PRT  
<213> Homo sapiens

<400> 16  
Asp Ser Lys Gly Gln Thr Lys Leu Leu Gln Leu Leu Thr Thr Lys Ser  
1 5 10 15

Asp Gln Met

<210> 17  
<211> 19  
<212> PRT  
<213> Homo sapiens

<400> 17  
Leu Lys Glu Lys His Lys Ile Leu His Gln Leu Leu Gln Asp Ser Ser  
1 5 10 15

Ser Pro Val

<210> 18  
<211> 19  
<212> PRT  
<213> Homo sapiens

<400> 18  
Lys Lys Lys Glu Asn Ala Leu Leu Arg Tyr Leu Leu Asp Lys Asp Asp  
1 5 10 15

Thr Lys Asp

<210> 19  
<211> 19  
<212> PRT  
<213> Homo sapiens

<400> 19  
Tyr Ser Gln Thr Ser His Lys Leu Val Lys Leu Leu Thr Thr Thr  
1 5 10

Ala Glu Gln Gln

<210> 24  
<211> 17  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 24  
Ser Arg Gly Glu Leu Thr Thr Trp Tyr Glu Phe Leu Ser His Gly Arg  
1 5 10 15

Pro

<210> 25  
<211> 11  
<212> PRT  
<213> Artificial Sequence.

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 25  
Asp Glu Leu Thr Trp Trp Glu Phe Ile Ser Asp  
1 5 10

<210> 26  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 26  
Val Thr Trp Tyr Asp Phe Leu Met Glu Asp Thr Lys  
1 5 10

<210> 27  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 27  
Gly Leu Met Thr Trp Arg Glu Phe Leu Gln Glu  
1 5 10

<210> 28  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 28  
Asn Leu Met Thr Trp Tyr Glu Tyr Leu Ala Asp Gly Glu Arg Leu  
1 5 10 15

<210> 29  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 29  
Ala Asp Arg Leu Trp Thr Trp Gln Glu Phe Leu Tyr  
1 5 10

<210> 30  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 30  
Lys Thr Tyr Ser Leu Tyr Glu Phe Leu Glu Leu  
1 5 10

<210> 31  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 31  
Ser Ser Gln Leu Leu Thr Leu His Glu Phe Leu Asn Ser  
1 5 10

<210> 32

<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 32  
Ser Ser Arg Gly Glu Tyr Trp Trp Glu Phe Leu Gly Tyr Ser Arg  
1 5 10 15

<210> 33  
<211> 17  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 33  
Ser Ser Ala Asp Gly Ile Phe Trp Trp Glu Tyr Ala Arg Glu Ala Gly  
1 5 10 15

Glu

<210> 34  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 34  
Leu Gly Arg Gly Thr Thr Asp Met Pro Pro Trp Ala Trp Trp Ser  
1 5 10 15

<210> 35  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 35  
Asn Tyr Thr Glu Arg Pro Trp Val Trp Tyr His  
1 5 10

<210> 36

<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 36  
Ser Ser Leu Tyr Ser Met Glu Pro Trp Lys Trp Tyr Thr  
1 5 10

<210> 37  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 37  
Lys Trp Trp Glu Ser Asp Trp Phe Val Asn Phe Gly  
1 5 10

<210> 38  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 38  
Glu Glu Gly Met Asp Trp Phe Met Arg Val Val Glu  
1 5 10

<210> 39  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 39  
Ser Val Leu Ser Ser Ser Glu Met Cys Phe Gly Trp Ala Cys Tyr  
1 5 10 15

<210> 40  
<211> 10  
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 40

Ser Glu Met Cys Phe Gly Trp Ala Cys Tyr  
1 5 10

<210> 41

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 41

Phe Asn Glu Val Cys Leu Gly Trp Gln Cys Tyr  
1 5 10

<210> 42

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 42

Ser Ser Asn Ala Arg Pro Cys Gln Gly Trp His Cys Tyr Leu Pro Ser  
1 5 10 15

Gln Ser Arg

<210> 43

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 43

Trp Asp Gly Gly Val Trp Met Gly Pro Ala Ser  
1 5 10

<210> 44

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 44

Met Gly Asp Ser Val Leu Pro Tyr Gly Gly Val Trp Leu Gly Pro  
1 5 10 15

<210> 45

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 45

Ser Arg Tyr Gly Gly Val Trp Leu Gly Pro Glu Gly Asn Ser Arg  
1 5 10 15

<210> 46

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 46

Ser Ser Trp Asp Gly Gly Val Trp Trp Gly Gln Tyr Gly Ser Arg  
1 5 10 15

<210> 47

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 47

Ser Ser Asn Leu Asp Gly Cys Phe Thr Ser Gly Gly Val Trp Ser Gly  
1 5 10 15

Cys Ser Arg

<210> 48

<211> 11

<212> PRT

<213> Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence:Arbitrary peptide

&lt;400&gt; 48

Leu Gly Tyr Asp Ile Asn Gly Val Trp Ile Gly  
1 5 10

&lt;210&gt; 49

&lt;211&gt; 13

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence:Arbitrary peptide

&lt;400&gt; 49

Ile Cys Asp Ile Ile Pro Trp Glu Glu Ser Cys Ser Arg  
1 5 10

&lt;210&gt; 50

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence:Arbitrary peptide

&lt;400&gt; 50

Ala Cys Gly Pro Ala Ile Cys Pro Trp Asp Phe Met Pro Gln Leu  
1 5 10 15

&lt;210&gt; 51

&lt;211&gt; 19

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence:Arbitrary peptide

&lt;400&gt; 51

Ser Arg Gly Pro Gln Leu Thr Trp Gln Glu Phe Leu Thr Gly Ala Ala  
1 5 10 15

Ser Ser Arg

&lt;210&gt; 52

&lt;211&gt; 11

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 52

Asn Val Val Thr Trp Trp Glu Phe Leu Gly Pro  
1 5 10

<210> 53

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 53

Ser Arg Glu Phe Val Thr Trp Lys Glu Phe Leu Gly Ser  
1 5 10

<210> 54

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 54

Ser Gln Leu Thr Trp Arg Glu Phe Leu Phe Gly  
1 5 10

<210> 55

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 55

Ser Ser His Leu Met Thr Trp His Glu Phe Ile Ser Asp  
1 5 10

<210> 56

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 56

Ser Arg Asp Gly Phe Glu Thr Trp Ala Glu Phe Leu Gly Ala Ser Gly  
1 5 10 15

Ser

<210> 57

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 57

Ser Arg Leu Thr Trp Ser Glu Tyr Leu Ser Glu Ile Asp Pro  
1 5 10

<210> 58

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 58

Ser Arg Thr Val Thr Trp Val Asp Phe Leu Lys Glu Thr  
1 5 10

<210> 59

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 59

Ser Ser Lys Tyr Ser Tyr Ser Arg Ser Ser Glu Gly His Ser Arg  
1 5 10 15

<210> 60

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 60

Ser Ser Tyr Gln Trp Glu Thr His Ser Asp Lys Trp Arg Ser Arg  
1 5 10 15

<210> 61

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 61

Ser Ser Val Thr Lys Lys Ala Leu Thr Ile Ala Lys Asp Ser Arg  
1 5 10 15

<210> 62

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 62

Ser Ser Asn His Gln Ser Ser Arg Leu Ile Glu Leu Leu Ser Arg  
1 5 10 15

<210> 63

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 63

Ser Arg Leu Lys Glu Leu Leu Leu Leu Pro Thr Asp Leu Ser Arg  
1 5 10 15

<210> 64

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 64

Ser Ser Lys Leu Tyr Cys Leu Leu Asp Glu Ser Tyr Cys Ser Arg  
1 5 10 15

&lt;210&gt; 65

&lt;211&gt; 14

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 65

His Gly Pro Leu Thr Leu Asn Leu Leu Arg Ser Ser Gly Gly  
1 5 10

&lt;210&gt; 66

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 66

Ser Arg Leu Glu Tyr Trp Leu Lys Trp Glu Pro Gly Pro Ser Arg  
1 5 10 15

&lt;210&gt; 67

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 67

Ser Ser Cys Lys Trp Tyr Glu Lys Cys Ser Gly Leu Trp Ser Arg  
1 5 10 15

&lt;210&gt; 68

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 68

Ser Ser Glu Tyr Cys Phe Tyr Trp Asp Ser Ala His Cys Ser Arg  
 1 5 10 15

<210> 69

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
 peptide

<400> 69

Ser Ser Trp Val Leu Leu Arg Asp Leu Pro Trp Gly Ser Arg  
 1 5 10

<210> 70

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
 peptide

<400> 70

Ser Ser Trp Val Arg Leu Ser Asp Phe Pro Trp Gly Val Ser Arg  
 1 5 10 15

<210> 71

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
 peptide

<400> 71

Ser Ser Leu Thr Ser Arg Asp Phe Gly Ser Trp Tyr Ala Ser Arg  
 1 5 10 15

<210> 72

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
 peptide

<400> 72

Ser Arg Thr Trp Glu Ser Pro Leu Gly Thr Trp Glu Trp Ser Arg  
 1 5 10 15

<210> 73  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 73  
Ser Ala Ala Cys Ala Thr Ile Ser His Tyr Leu Met Gly Gly  
1 5 10

<210> 74  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 74  
Ser Arg Asn Leu Cys Phe Phe Trp Asp Asp Glu Tyr Cys Ser Arg  
1 5 10 15

<210> 75  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 75  
Ser Trp Asp Met His Gln Phe Phe Trp Glu Gly Val Ser Arg  
1 5 10

<210> 76  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 76  
Ser Arg Trp His Gly Thr Leu Phe Trp Gln Asp Glu Gln Ser Arg  
1 5 10 15

<210> 77  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 77  
Ser Ser Cys Lys Trp Tyr Glu Lys Cys Ser Gly Leu Trp Ser Arg  
1 5 10 15

<210> 78  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 78  
Ser Ser Arg Met Gly His Val Trp Tyr Asp Trp Thr Phe Ser Arg  
1 5 10 15

<210> 79  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 79  
Ser Ser Arg Leu Leu Gly Asp Phe Gly Gly Ser Val Val Ser Arg  
1 5 10 15

<210> 80  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 80  
Ser Ser Lys Tyr Val Phe Gly Phe Gln Val Ala Gly Gly Ser Arg  
1 5 10 15

<210> 81  
<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 81

Ser	Ser	Trp	Ala	Gly	Ile	Lys	Phe	Gly	Lys	Pro	Pro	His	Ser	Arg
1				5				10						15

<210> 82

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 82

Ser	Ser	Ser	Trp	Ser	Tyr	Gly	Lys	Pro	Thr	Phe	Leu	Ser	Ser	Arg
1				5				10						15

<210> 83

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 83

Ser	Arg	Asp	Thr	Gly	Asp	Met	Trp	Trp	Gly	Arg	Gly	Gly	Ser	Arg
1				5				10						15

<210> 84

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 84

Ser	Ser	Gly	Arg	Tyr	Asp	Pro	Phe	Val	Leu	Asn	Ala	Ala	Ser	Arg
1				5				10						15

<210> 85

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 85

Ser Ser Ser Pro Trp Trp Ser Phe Asn Leu Arg Asp Met Ser Arg  
1 5 10 15

<210> 86

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 86

Ser Ser Trp Pro Tyr Leu Pro Lys Arg Glu Glu Trp Ala Ser Arg  
1 5 10 15

<210> 87

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 87

Ser Ser Gly Trp Ile Glu Gln Lys Leu Arg Gly Ser Phe Ser Arg  
1 5 10 15

<210> 88

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 88

Ser Ser Ser Ala Thr Ser Ile Lys Val Gln Tyr Gln Ile Ser Arg  
1 5 10 15

<210> 89

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 89

Ser Ser Tyr Leu Thr Leu Gly Lys Ser Met Met Ala Ile Ser Arg  
1 5 10 15

<210> 90

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 90

Ser Ser Trp His Ser Arg Trp Asp Leu Ala Leu Gly Phe Ser Arg  
1 5 10 15

<210> 91

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 91

Ser Ser Gly Tyr Trp Gly Gly Trp Asp Tyr Gly Ala Gly Ser Arg  
1 5 10 15

<210> 92

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 92

Ser Arg Asp Asn Cys Gly Ala Gly Leu Trp Ala Gly Cys Ser Arg  
1 5 10 15

<210> 93

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 93  
Ser Ser Ser Thr Pro Gly Trp Trp Glu Trp Asp Trp Ala Ser Arg  
1 5 10 15

<210> 94  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 94  
Ser Ser Tyr Trp Asp Gly Ser Trp Arg Arg Lys Glu Thr Cys Val Ser  
1 5 10 15

Cys Ser Arg

<210> 95  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 95  
Ser Ser Arg Thr Ala Glu Asp Tyr Cys Phe Phe Ala Asp Asp Tyr Trp  
1 5 10 15

Cys Ser Arg

<210> 96  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 96  
Ser Ser Arg Ala Leu Ala Leu Phe Pro Val Gly Met Glu Ser Arg  
1 5 10 15

<210> 97  
<211> 19  
<212> PRT  
<213> Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 97

Ser Ser Asp Cys Glu Ser Leu Thr Ser Tyr Pro His Leu Lys Ala Leu  
1 5 10 15

Cys Ser Arg

&lt;210&gt; 98

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 98

Ser Ser Thr Ala Thr Ala Leu Arg Asp Arg Leu Ala Tyr Ser Arg  
1 5 10 15

&lt;210&gt; 99

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 99

Ser Ser Gly Lys Thr Arg Glu His Tyr Arg Glu Gly Thr Ser Arg  
1 5 10 15

&lt;210&gt; 100

&lt;211&gt; 16

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 100

His Ser His Asn His His Ser Pro Trp Leu Phe Arg Leu Leu Gly Gly  
1 5 10 15

&lt;210&gt; 101

&lt;211&gt; 16

&lt;212&gt; PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 101

His Ser His Pro His His Ser His Leu Leu Tyr Lys Leu Met Gly Gly  
1 5 10 15

<210> 102

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 102

His Ser His Pro Leu Pro Pro Leu Leu Ser Arg Leu Leu Thr Gly Gly  
1 5 10 15

<210> 103

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 103

Ser Arg Leu Thr Cys Leu Leu Gln Ser Asn Gly Trp Asp Ser Glu Gln  
1 5 10 15

Cys Ser Arg

<210> 104

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 104

Ser Ser Leu Thr Ser Arg Asp Phe Gly Ser Trp Tyr Ala Ser Arg  
1 5 10 15

<210> 105

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 105

Ser Arg Thr Leu Gln Leu Asp Trp Gly Thr Leu Tyr Ser Arg  
1 5 10

<210> 106

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 106

Ser Arg Leu Pro Pro Ser Val Phe Ser Met Cys Gly Ser Glu Val Cys  
1 5 10 15

Leu Ser Arg

<210> 107

<211> 28

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 107

Ser Arg Phe Glu Ile Trp Lys Pro Glu Pro Gly Cys Val Ser Ser Leu  
1 5 10 15

Glu Asn Trp Glu Pro Gly Lys Arg Val Cys Ser Arg  
20 25

<210> 108

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 108

Ser Arg Val Phe Gly Val Ser Gly Gly Glu Val Val Leu Ile Asn Gly  
1 5 10 15

Ser Ser Arg

<210> 109

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 109

Ser	Arg	Leu	Cys	Phe	Gly	Asp	Trp	Cys	Met	Leu	Gly	Gly	Val	Asp	Val
1				5					10					15	

Leu Ser Arg

<210> 110

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 110

Ser	Ser	Leu	Asn	Met	Val	Val	Asp	Thr	Pro	Trp	Cys	Gly	Lys	Trp	Val
1				5					10					15	

Cys Ser Arg

<210> 111

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 111

Ser	Ser	Arg	Pro	Asp	Ala	Ala	Phe	Phe	Gly	Ala	Lys	Leu	Ser	Arg
1				5					10					15

<210> 112

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 112

Ser Ser Arg Pro Ser Pro Ser Phe Trp Glu Lys Gln Leu Ser Arg  
1 5 10 15

<210> 113

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 113

Ser Ser Arg Pro Thr Ala Glu Trp Phe Arg Glu Asn Leu Ser Arg  
1 5 10 15

<210> 114

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 114

Ser Arg Trp Trp Asp Thr Ser Trp Trp Leu Glu Glu Leu Ser Arg  
1 5 10 15

<210> 115

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 115

Ser Ser Arg Ile Ala Asp Leu Phe Trp Arg Leu Glu Pro Ser Arg  
1 5 10 15

<210> 116

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary

## peptide

&lt;400&gt; 116

Ser Arg Ser Tyr His Gly Glu Trp Gly Val Trp Thr Leu Ser Arg  
1 5 10 15

&lt;210&gt; 117

&lt;211&gt; 19

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 117

Ser Ser Asp Trp Cys Phe Gly Trp Gly Gly Trp Cys Ala Ser Glu Ala  
1 5 10 15

Val Ser Arg

&lt;210&gt; 118

&lt;211&gt; 19

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 118

Ser Arg Asn Trp Asp Trp Ala Ala Leu Glu Leu Leu Pro Tyr Pro His  
1 5 10 15

Pro Ser Arg

&lt;210&gt; 119

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 119

Ser Ser Leu Thr Ser Arg Asp Phe Gly Ser Trp Tyr Ala Ser Arg  
1 5 10 15

&lt;210&gt; 120

&lt;211&gt; 15

&lt;212&gt; PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 120

Ser Arg Ser Pro Ile Leu Thr His Leu Leu Ser Leu Gly Ser Arg  
1 5 10 15

<210> 121

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 121

Ser Ser Thr Gly Ile Leu Trp Lys Leu Leu Thr Ala Glu Ser Arg  
1 5 10 15

<210> 122

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 122

Ser Ser His Gly Ile Leu Trp Arg Leu Leu Ser Glu Gly Ser Arg  
1 5 10 15

<210> 123

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 123

Ser Arg Ser Asp Ser Ile Leu Trp Arg Met Leu Ser Glu Ser Arg  
1 5 10 15

<210> 124

<211> 15

<212> PRT

<213> Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 124

Ser Arg Leu Val Ala Leu Leu Lys Ser Pro Trp Ser Val Ser Arg  
1 5 10 15

&lt;210&gt; 125

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 125

Ser Arg Leu Glu Glu Leu Leu Leu Met Asp Phe Trp Arg Ser Arg  
1 5 10 15

&lt;210&gt; 126

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 126

Ser Ser Lys Leu Trp Gln Leu Leu Ser Ser Pro Ile Asp Ser Arg  
1 5 10 15

&lt;210&gt; 127

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 127

Ser Ser Lys Leu Tyr Cys Leu Leu Asp Glu Ser Tyr Cys Ser Arg  
1 5 10 15

&lt;210&gt; 128

&lt;211&gt; 19

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence:Arbitrary

## peptide

&lt;400&gt; 128

Ser	Arg	Ser	Leu	Leu	Met	Asp	Met	Leu	Met	Ser	Asp	Asp	Tyr	Val	Thr
1				5					10					15	

Val Ser Arg

&lt;210&gt; 129

&lt;211&gt; 19

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 129

Ser	Ser	Arg	Leu	Leu	Ala	Cys	Glu	Leu	Met	Tyr	Glu	Asp	Ala	Asp	Val
1				5					10					15	

Cys Ser Arg

&lt;210&gt; 130

&lt;211&gt; 16

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 130

His	Ser	His	Ser	Pro	Leu	Leu	Met	Ala	Leu	Leu	Ala	Pro	Pro	Gly	Gly
1				5					10					15	

&lt;210&gt; 131

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 131

Ser	Arg	Leu	Glu	Tyr	Tyr	Leu	Arg	Leu	Gly	Thr	Tyr	Glu	Ser	Arg
1				5					10				15	

&lt;210&gt; 132

&lt;211&gt; 15

&lt;212&gt; PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 132

Ser Ser Cys Leu Arg Glu Ile Leu Leu Tyr Gly Ala Cys Ser Arg  
1 5 10 15

<210> 133

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 133

Ser Ser Arg Thr Ala Glu Asp Tyr Cys Phe Phe Ala Asp Asp Tyr Trp  
1 5 10 15

Cys Ser Arg

<210> 134

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 134

Ser Ser Leu Arg Cys Tyr Leu Ser Ser Ser Lys Val Asp Gln Trp Ala  
1 5 10 15

Cys Ser Arg

<210> 135

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 135

Ser Ser Tyr Lys Pro His Ser Leu Leu Glu Trp His Leu Leu Gly Gly  
1 5 10 15

Thr Ser Arg

<210> 136  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 136  
Ser Arg Leu His Cys Leu Leu Asp Ser Ser Tyr Cys Ser Ser Arg  
1 5 10 15

<210> 137  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 137  
Ser Arg Leu His Cys Leu Leu Asp Ser Ser Tyr Cys Ser Ser Arg  
1 5 10 15

<210> 138  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 138  
Ser Ser Trp Pro Asn Pro Thr Phe Trp Glu Arg Gln Leu Ser Arg  
1 5 10 15

<210> 139  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 139  
Ser Tyr Ser Lys Glu Trp Phe Glu Glu Arg Leu Asn Ser Arg  
1 5 10

<210> 140  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 140  
Ser Ser Ser Met Met Arg Glu Phe Phe Glu Arg Glu Leu Ser Arg  
1 5 10 15

<210> 141  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 141  
Ser Ser Gly Leu Pro Pro Asn Phe Glu Arg Met Leu Lys Ser Arg  
1 5 10 15

<210> 142  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 142  
Ser Ser Gly Pro Trp Leu Met His Tyr Leu Gly Gly Gly Ser Arg  
1 5 10 15

<210> 143  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 143  
Ser Ser Thr Ser Trp Leu His His Tyr Leu Met Gly Thr Ser Arg  
1 5 10 15

<210> 144  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 144  
Ser Arg Gly Gly Gly Glu Cys Leu Gly Pro Trp Cys Leu Ser Arg  
1 5 10 15

<210> 145  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 145  
Ser Ser Glu Ala Cys Val Gly Arg Trp Met Leu Cys Glu Gln Leu Gly  
1 5 10 15

Val Ser Arg

<210> 146  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 146  
Ser Ser Gln Val Trp Pro Gly Pro Trp Arg Leu Val Glu Ser Arg  
1 5 10 15

<210> 147  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 147  
Ser Ser Ser Leu Gly Pro Trp Arg Leu Ser Glu Leu Glu Ser Arg  
1 5 10 15

<210> 148  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 148  
Ser Ser Ser Gly Pro Trp Arg Trp Gly Leu Ser Ile Glu Ser Arg  
1 5 10 15

<210> 149  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 149  
Ser Arg Glu Cys Val Gly Gly Trp Cys Leu Ala Glu Leu Ser Arg  
1 5 10 15

<210> 150  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 150  
Ser Ser Ile Pro Pro Arg Ser Trp Trp Leu Ser Gln Leu Ser Arg  
1 5 10 15

<210> 151  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 151  
Ser Ser Trp Pro Gly Ala Glu Trp Phe Lys Glu Gln Leu Ser Arg  
1 5 10 15

<210> 152

<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 152  
Ser Ser Lys Leu Tyr Cys Leu Leu Asp Glu Ser Tyr Cys Ser Arg  
1 5 10 15

<210> 153  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 153  
His Ser Tyr Ser Ser His Pro Leu Leu Leu Ser Tyr Leu Trp Gly Gly  
1 5 10 15

<210> 154  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 154  
His Ser Trp Leu Gly Pro Trp Arg Leu Ser Ser Ile Asp Leu Gly Gly  
1 5 10 15

<210> 155  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 155  
His Ser Thr Asp Met Gly Trp Leu Arg Pro Trp Arg Leu Leu Gly Gly  
1 5 10 15

<210> 156  
<211> 15  
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 156

Ser Ser Val Phe Thr Ile Met Asp Gly Lys Val Ala Leu Ser Arg  
1 5 10 15

<210> 157

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 157

Ser Arg Pro Tyr Cys Leu Gly Asp Val Trp Cys Leu Asp Ser Arg  
1 5 10 15

<210> 158

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 158

Ser Arg Glu Trp Glu Asp Gly Phe Gly Gly Arg Trp Leu Ser Arg  
1 5 10 15

<210> 159

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 159

Ser Ser Trp Asn Ser Arg Glu Phe Phe Leu Ser Gln Leu Ser Arg  
1 5 10 15

<210> 160

<211> 15

<212> PRT

<213> Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 160

Ser Ser Thr Thr Met Phe Asp Phe Phe Tyr Glu Arg Leu Ser Arg  
1 5 10 15

&lt;210&gt; 161

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 161

Ser Ser Ala Arg Pro Trp Trp Leu Gln Phe Glu Gly Ser Ser Arg  
1 5 10 15

&lt;210&gt; 162

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 162

Ser Ser Gln Glu Glu Trp Leu Leu Pro Trp Arg Leu Ala Ser Arg  
1 5 10 15

&lt;210&gt; 163

&lt;211&gt; 19

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 163

Ser Arg Leu Pro Pro Ser Val Phe Ser Met Cys Gly Ser Glu Val Cys  
1 5 10 15

Leu Ser Arg

&lt;210&gt; 164

&lt;211&gt; 19

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 164

Ser Ser Gly Pro Phe Tyr Val Gly Gly Met Leu Trp Pro Ala Asp Cys  
1 5 10 15

Leu Ser Arg

&lt;210&gt; 165

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 165

Ser Arg Glu Gly Trp Met Gly Pro Trp Arg Leu Ala Asp Ser Arg  
1 5 10 15

&lt;210&gt; 166

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 166

Ser Arg Asn Glu Cys Ile Gly Pro Trp Cys Leu Thr Ile Ser Arg  
1 5 10 15

&lt;210&gt; 167

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 167

Ser Ser Pro Gly Ser Arg Glu Trp Phe Lys Asp Met Leu Ser Arg  
1 5 10 15

&lt;210&gt; 168

&lt;211&gt; 15

&lt;212&gt; PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 168

Ser Ser Val Ala Ser Arg Glu Trp Trp Val Arg Glu Leu Ser Arg  
1 5 10 15

<210> 169

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 169

Ser Arg Met Phe Gln Val Cys Gly Asp Glu Val Cys Leu Arg Ser Arg  
1 5 10 15

<210> 170

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 170

Ser Ser Asp Leu His Arg Asp Cys Leu Gly Val Trp Cys Leu Ser Arg  
1 5 10 15

<210> 171

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 171

Ser Arg Leu Asn Gly Val Phe Cys His Asp Ser Ser Asp Leu Trp Val  
1 5 10 15

Cys Ser Arg

<210> 172

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 172

Ser Arg Pro Gly Cys Leu Arg Gly Val Trp Cys Leu Ala Asp Thr Pro  
1 5 10 15

Pro Ser Arg

<210> 173

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 173

Ser Ser Arg Leu Val Pro His Ser Phe Trp Leu Asp Gly Leu Met His  
1 5 10 15

Gly Ser Arg

<210> 174

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 174

Ser Ser Ile Ser Thr Tyr His Met Gly Glu Trp Phe Tyr Ala Met Leu  
1 5 10 15

Ser Ser Arg

<210> 175

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 187

Ser Ser Ile Lys Asp Phe Pro Asn Leu Ile Ser Leu Leu Ser Arg  
1 5 10 15

<210> 188

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary.  
peptide

<400> 188

Ser Ser Gly Ser Ser Ala Gly Arg Leu Met Met Leu Leu Gln Asp Gly  
1 5 10 15

Val Ser Arg

<210> 189

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 189

Ser Arg Glu Gly Leu Leu Met Arg Leu Leu Ile Gly Asp Ser Arg  
1 5 10 15

<210> 190

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 190

Ser Ser His Cys His Thr Arg Leu Cys Ser Leu Leu Thr Ser Arg  
1 5 10 15

<210> 191

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 191

Ser Ser Arg Leu Leu Cys Leu Leu Asp Ala Gly Gln Cys Ser Arg  
1 5 10 15

<210> 192

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 192

Ser Arg Asn Leu Leu Cys Leu Leu Asp Gln Glu Ala Cys Ser Arg  
1 5 10 15

<210> 193

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 193

Ser Ser Leu Lys Cys Leu Leu Asn Ser Asn Phe Cys Ser Arg  
1 5 10

<210> 194

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 194

Ser Ser Leu Lys Cys Leu Leu Gln Ser Ser Pro Gln Lys Gln Pro Phe  
1 5 10 15

Cys Ser Arg

<210> 195

<211> 15

<212> PRT

<213> Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 195

Ser	Ser	Arg	Thr	Leu	Leu	Glu	His	Tyr	Leu	Leu	Gly	Gly	Ser	Arg
1				5					10				15	

&lt;210&gt; 196

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 196

Ser	Ser	Ala	Gly	Leu	Leu	Glu	Asp	Met	Leu	Arg	Ser	Arg	Ser	Arg
1				5					10				15	

&lt;210&gt; 197

&lt;211&gt; 19

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 197

Ser	Ser	Arg	Cys	Ser	Ser	Leu	Leu	Cys	Glu	Met	Leu	Ile	Gln	Thr	Lys
1				5				10					15		

Glu Ser Arg

&lt;210&gt; 198

&lt;211&gt; 19

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 198

Ser	Ser	Leu	Gln	Ala	Gly	Ser	Trp	Leu	Met	His	Tyr	Leu	Arg	Gly	Gly
1				5				10					15		

Asp Ser Arg

<210> 199  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 199  
Ser Arg Pro Glu Gly Ser Ser Trp Leu Leu His Tyr Leu Ser Arg  
1 5 10 15

<210> 200  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 200  
Ser Ser Arg Thr Leu Leu Glu His Tyr Leu Leu Gly Gly Ser Arg  
1 5 10 15

<210> 201  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 201  
Ser Arg Trp Trp Leu Asp Asp His Glu Leu Leu Leu Tyr Ser Ser Arg  
1 5 10 15

<210> 202  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 202  
Ser Ser Arg Thr Leu Tyr Cys His Leu Thr Ser Ser Asn Pro Glu Trp  
1 5 10 15

Cys Ser Arg

<210> 203  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 203  
Ser Ser Thr Arg Leu Met Cys Trp Leu Gly Ser Ala Asp Thr Ser His  
1 5 10 15

Cys Ser Arg

<210> 204  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 204  
Ser Ser Tyr Asp Trp Gln Cys Pro Ser Trp Tyr Cys Pro Ala Pro Pro  
1 5 10 15

Ser Ser Arg

<210> 205  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 205  
Ser Ser Thr Thr Trp Arg Cys Pro Glu Trp Tyr Cys Gly Ser Arg  
1 5 10 15

<210> 206  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 206

Ser Ser Trp Asp Phe Arg Val Pro Trp Trp Tyr Asn Asn Ser Arg  
1 5 10 15

&lt;210&gt; 207

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 207

Ser Ser Gln Trp Gln Ala Pro Trp Trp Tyr Ile Asp Ala Ser Arg  
1 5 10 15

&lt;210&gt; 208

&lt;211&gt; 19

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 208

Ser Ser Arg Pro Ser Phe Thr Ile Pro Trp Trp Phe Asp Asp Pro Ser  
1 5 10 15

Arg Ser Arg

&lt;210&gt; 209

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 209

Ser Ser Tyr Glu Ile Pro Lys Trp Ala Leu Gln Trp Leu Ser Arg  
1 5 10 15

&lt;210&gt; 210

&lt;211&gt; 19

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 210  
Ser Ser Leu Asp Leu Ser Gln Phe Pro Met Thr Ala Ser Phe Leu Arg  
1 5 10 15

Glu Ser Arg

<210> 211  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 211  
Ser Ser Asn His Gln Ser Ser Arg Leu Ile Glu Leu Leu Ser Arg  
1 5 10 15

<210> 212  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 212  
Ser Ala Pro Arg Ala Thr Ile Ser His Tyr Leu Met Gly Gly  
1 5 10

<210> 213  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 213  
Ser Ser Trp Asp Met His Gln Phe Phe Trp Glu Gly Val Ser Arg  
1 5 10 15

<210> 214  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary

## peptide

<400> 214  
Ser Arg Leu Pro Pro Ser Val Phe Ser Met Cys Gly Ser Glu Val Cys  
1 5 10 15

Leu Ser Arg

<210> 215  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 215  
Ser Ser Pro Gly Ser Arg Glu Trp Phe Lys Asp Met Leu Ser Arg  
1 5 10 15

<210> 216  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 216  
Ser Ser Glu Tyr Cys Phe Tyr Trp Asp Ser Ala His Cys Ser Arg  
1 5 10 15

<210> 217  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 217  
Ser Ser Leu Thr Ser Arg Asp Phe Gly Ser Trp Tyr Ala Ser Arg  
1 5 10 15

<210> 218  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 218  
Ser Arg Thr Trp Glu Ser Pro Leu Gly Thr Trp Glu Trp Ser Arg  
1 5 10 15

<210> 219  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 219  
Ser Arg Glu Trp Glu Asp Gly Phe Gly Gly Arg Trp Leu Ser Arg  
1 5 10 15

<210> 220  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 220  
Ser Ser Leu Asp Leu Ser Gln Phe Pro Met Thr Ala Ser Phe Leu Arg  
1 5 10 15

Glu Ser Arg

<210> 221  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 221  
Ser Ser Glu Ala Cys Val Gly Arg Trp Met Leu Cys Glu Gln Leu Gly  
1 5 10 15

Val Ser Arg

<210> 222  
<211> 15

<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 222  
Ser Arg Ala Gly Leu Leu Ser Asp Leu Leu Glu Gly Lys Ser Arg  
1 5 10 15

<210> 223  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 223  
Ser Ser Arg Ser Leu Leu Arg Asp Leu Leu Met Val Asp Ser Arg  
1 5 10 15

<210> 224  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 224  
Ser Ser Asn Lys Leu Leu Tyr Asn Leu Leu Lys Met Glu Ser Arg  
1 5 10 15

<210> 225  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 225  
Ser Ser Lys Ser Leu Leu Leu Asn Leu Leu Ser Thr Pro Ser Arg  
1 5 10 15

<210> 226  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 226  
His Ser Phe Pro Arg Glu Ser Leu Leu Val Arg Leu Leu Gln Gly Gly  
1 5 10 15

<210> 227  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 227  
Ser Arg Leu Glu Met Leu Leu Arg Ser Glu Thr Asp Phe Ser Arg  
1 5 10 15

<210> 228  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 228  
Ser Arg Leu Glu Glu Leu Leu Lys Trp Gly Ser Val Thr Ser Arg  
1 5 10 15

<210> 229  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 229  
Ser Arg Leu Glu Gln Leu Leu Lys Glu Glu Phe Ser Tyr Ser Arg  
1 5 10 15

<210> 230  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 230  
Ser Arg Leu Glu Gln Leu Leu Arg Ser Glu Pro Asp Phe Ser Arg  
1 5 10 15

<210> 231  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 231  
Ser Arg Leu Glu Asp Leu Leu Arg Ala Pro Phe Thr Thr Ser Arg  
1 5 10 15

<210> 232  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 232  
Ser Arg Leu Glu Ser Leu Leu Arg Phe Gly Gln Leu Asp Ser Arg  
1 5 10 15

<210> 233  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 233  
Ser Ser Arg Leu Leu Ser Leu Leu Val Gly Asp Phe Asn Ser Arg  
1 5 10 15

<210> 234  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 234  
Ser Arg Leu Glu Glu Leu Leu Leu Gly Thr Asn Arg Asp Ser Arg  
1 5 10 15

<210> 235  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 235  
Ser Arg Leu Glu Glu Leu Leu Leu Met Asp Phe Trp Arg Ser Arg  
1 5 10 15

<210> 236  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 236  
Ser Arg Leu Lys Glu Leu Leu Leu Leu Pro Thr Asp Leu Ser Arg  
1 5 10 15

<210> 237  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 237  
Ser Arg Leu Glu Cys Leu Leu Glu Gly Arg Leu Asn Cys Ser Arg  
1 5 10 15

<210> 238  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 238

Ser Ser Lys Leu Tyr Cys Leu Leu Asp Glu Ser Tyr Cys Ser Arg  
 1 5 10 15

<210> 239  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:Arbitrary  
 peptide

<400> 239  
 Ser Arg Leu Ser Cys Leu Leu Met Gly Phe Glu Asp Cys Ser Arg  
 1 5 10 15

<210> 240  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:Arbitrary  
 peptide

<400> 240  
 Ser Ser Lys Leu Ile Arg Leu Leu Thr Ser Asp Glu Glu Leu Ser Arg  
 1 5 10 15

<210> 241  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:Arbitrary  
 peptide

<400> 241  
 Ser Ser Arg Leu Met Glu Leu Leu Gln Glu Gly Gln Gly Trp Ser Arg  
 1 5 10 15

<210> 242  
 <211> 15  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:Arbitrary  
 peptide

<400> 242  
 Ser Ser Asn His Gln Ser Ser Arg Leu Ile Glu Leu Leu Ser Arg  
 1 5 10 15

<210> 243  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 243  
Ser Ser Arg Leu Trp Gln Leu Leu Ala Ser Thr Asp Thr Ser Arg  
1 5 10 15

<210> 244  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 244  
Ser Ser Lys Leu Trp Gln Leu Leu Ser Ser Pro Ile Asp Ser Arg  
1 5 10 15

<210> 245  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 245  
Ser Arg Leu Val Ala Leu Leu Lys Ser Pro Trp Ser Val Ser Arg  
1 5 10 15

<210> 246  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 246  
Ser Ser Asn Ser Met Leu Trp Lys Leu Leu Ala Ala Pro Ser Arg  
1 5 10 15

<210> 247  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 247  
Ser Ser Lys Thr Leu Trp Arg Leu Leu Glu Gly Glu Arg Ser Arg  
1 5 10 15

<210> 248  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 248  
Ser Arg Ala Gly Pro Val Leu Trp Gly Leu Leu Ser Glu Ser Arg  
1 5 10 15

<210> 249  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 249  
Ser Arg Ser Pro Ile Leu Thr His Leu Leu Ser Leu Gly Ser Arg  
1 5 10 15

<210> 250  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 250  
Ser Ser Thr Gly Ile Leu Trp Lys Leu Leu Thr Ala Glu Ser Arg  
1 5 10 15

<210> 251  
<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary peptide

<400> 251

Ser Ser His Gly Ile Leu Trp Arg Leu Leu Ser Glu Gly Ser Arg  
1 5 10 15

<210> 252

<211> 11

<212> PRT

<213> Human steroid receptor coactivator 1a

<400> 252

Lys Leu Val Gln Leu Leu Thr Thr Thr Ala Glu  
1 5 10

<210> 253

<211> 11

<212> PRT

<213> Human steroid receptor coactivator 1a

<400> 253

Ile Leu His Arg Leu Leu Gln Glu Gly Ser Pro  
1 5 10

<210> 254

<211> 11

<212> PRT

<213> Human steroid receptor coactivator 1a

<400> 254

Leu Leu Arg Tyr Leu Leu Asp Lys Asp Glu Lys  
1 5 10

<210> 255

<211> 8

<212> PRT

<213> Human steroid receptor coactivator 1a

<400> 255

Leu Leu Gln Gln Leu Leu Thr Glu  
1 5

<210> 256

<211> 11

<212> PRT

<213> Mouse cAMP-responsive element (CREB)-binding protein

<400> 256

Gln Leu Ser Glu Leu Leu Arg Gly Gly Ser Gly  
1 5 10

<210> 257

<211> 11

<212> PRT

<213> Mouse cAMP-responsive element (CREB)-binding protein

<400> 257

Gln Leu Val Leu Leu Leu His Ala His Lys Cys  
1 5 10

<210> 258

<211> 11

<212> PRT

<213> Mouse cAMP-responsive element (CREB)-binding protein

<400> 258

Tyr Leu Glu Gly Leu Leu Met His Gln Ala Ala  
1 5 10

<210> 259

<211> 11

<212> PRT

<213> Mouse cAMP-responsive element (CREB)-binding protein

<400> 259

Leu Leu Ala Ser Leu Leu Gln Ser Glu Ser Ser  
1 5 10

<210> 260

<211> 11

<212> PRT

<213> Mouse cAMP-responsive element (CREB)-binding protein

<400> 260

His Leu Lys Thr Leu Leu Lys Lys Ser Lys Val  
1 5 10

<210> 261

<211> 11

<212> PRT

<213> Human RIP140

<400> 261

Gln Leu Ala Leu Leu Leu Ser Ser Glu Ala His  
1 5 10

<210> 262

<211> 11

<212> PRT

<213> Human RIP140

<400> 262  
Leu Leu Leu His Leu Leu Lys Ser Gln Thr Ile  
1 5 10

<210> 263  
<211> 11  
<212> PRT  
<213> Human RIP140

<400> 263  
Leu Leu Gln Leu Leu Leu Gly His Lys Asn Glu  
1 5 10

<210> 264  
<211> 11  
<212> PRT  
<213> Human RIP140

<400> 264  
Val Leu Gln Leu Leu Leu Gly Asn Pro Lys Gly  
1 5 10

<210> 265  
<211> 11  
<212> PRT  
<213> Human RIP140

<400> 265  
Leu Leu Ser Arg Leu Leu Arg Gln Asn Gln Asp  
1 5 10

<210> 266  
<211> 11  
<212> PRT  
<213> Human RIP140

<400> 266  
Val Leu Lys Gln Leu Leu Leu Ser Glu Asn Cys  
1 5 10

<210> 267  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 267  
Ser Ser Asn His Gln Ser Arg Leu Ile Glu Leu Leu Ser Arg  
1 5 10

<210> 268  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 268  
His Val Tyr Gln His Pro Leu Leu Leu Ser Leu Leu Ser Ser Glu His  
1 5 10 15

Glu Ser Gly

<210> 269  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 269  
His Val Glu Met His Pro Leu Leu Met Gly Leu Leu Met Glu Ser Gln  
1 5 10 15

Trp Gly Ala

<210> 270  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 270  
Gln Glu Ala His Gly Pro Leu Leu Trp Asn Leu Leu Ser Arg Ser Asp  
1 5 10 15

Thr Asp Trp

<210> 271  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:Arbitrary  
 peptide

<400> 271  
 Gly His Glu Pro Leu Thr Leu Leu Glu Arg Leu Leu Met Asp Asp Lys  
           1                          5                          10                          15

Gln Ala Val

<210> 272  
 <211> 19  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:Arbitrary  
 peptide

<400> 272  
 Leu Pro Tyr Glu Gly Ser Leu Leu Leu Lys Leu Leu Arg Ala Pro Val  
           1                          5                          10                          15

Glu Glu Val

<210> 273  
 <211> 19  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:Arbitrary  
 peptide

<400> 273  
 Ser Gly Trp Glu Asn Ser Ile Leu Tyr Ser Leu Leu Ser Asp Arg Val  
           1                          5                          10                          15

Ser Leu Asp

<210> 274  
 <211> 19  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:Arbitrary  
 peptide

<400> 274  
 Ala His Gly Glu Ser Ser Leu Leu Ala Trp Leu Leu Ser Gly Glu Tyr  
           1                          5                          10                          15

Ser Ser Ala

<210> 275  
 <211> 19  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:Arbitrary  
 peptide

<400> 275  
 Gly Val Phe Cys Asp Ser Ile Leu Cys Gln Leu Leu Ala His Asp Asn  
           1                  5                  10                  15

Ala Arg Leu

<210> 276  
 <211> 19  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:Arbitrary  
 peptide

<400> 276  
 His His Asn Gly His Ser Ile Leu Tyr Gly Leu Leu Ala Gly Ser Asp  
           1                  5                  10                  15

Ala Pro Ser

<210> 277  
 <211> 19  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:Arbitrary  
 peptide

<400> 277  
 Leu Gly Glu Arg Ala Ser Leu Leu Asp Met Leu Leu Arg Gln Glu Asn  
           1                  5                  10                  15

Pro Ala Trp

<210> 278  
 <211> 19

<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 278  
Ser Gly Trp Asn Glu Ser Thr Leu Tyr Arg Leu Leu Gln Ala Asp Ala  
1 5 10 15

Phe Asp Val

<210> 279  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 279  
Pro Ser Gly Gly Ser Ser Val Leu Glu Tyr Leu Leu Thr His Asp Thr  
1 5 10 15

Ser Ile Leu

<210> 280  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 280  
Gly Ser Glu Pro Lys Ser Arg Leu Leu Glu Leu Leu Ser Ala Pro Val  
1 5 10 15

Thr Asp Val

<210> 281  
<211> 19  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 281  
 His Pro Thr His Ser Ser Arg Leu Trp Glu Leu Leu Met Glu Ala Thr  
           1                  5                  10                  15

Pro Thr Met

<210> 282  
 <211> 19  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:Arbitrary  
           peptide

<400> 282  
 Val Glu Ser Gly Ser Ser Arg Leu Met Gln Leu Leu Met Ala Asn Asp  
           1                  5                  10                  15

Leu Leu Thr

<210> 283  
 <211> 19  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:Arbitrary  
           peptide

<400> 283  
 Trp Glu Glu His Ser Gln Met Leu Leu His Leu Leu Asp Thr Gly Glu  
           1                  5                  10                  15

Ala Val Trp

<210> 284  
 <211> 19  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:Arbitrary  
           peptide

<400> 284  
 Pro Val Gly Glu Pro Gly Leu Leu Trp Arg Leu Leu Ser Ala Pro Val  
           1                  5                  10                  15

Glu Arg Glu

<210> 285  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 285  
Met Ser Trp Tyr Glu Phe Met Thr Glu Glu Ser Met  
1 5 10

<210> 286  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 286  
Ala Lys His Asp Leu Ser Trp Tyr Glu Phe Leu Gln Leu Pro Ile  
1 5 10 15

<210> 287  
<211> 17  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 287  
Ser Arg Leu Ser Trp Trp Glu Phe Leu Gly Ala Ser Asp Cys Gly Thr  
1 5 10 15

Cys

<210> 288  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 288  
Asp Leu Leu Ser Leu Lys Glu Phe Leu Ala Thr  
1 5 10

<210> 289  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 289  
Ser Ser Pro Asn Leu Leu Thr Leu Glu Glu Phe Leu Ser  
1 5 10

<210> 290  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 290  
Lys Thr Tyr Ser Leu Tyr Glu Phe Leu Glu Leu  
1 5 10

<210> 291  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 291  
Met Ser Asn Arg Tyr Thr Ile Tyr Glu Phe Leu Asn Leu His Ser  
1 5 10 15

<210> 292  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 292  
Leu His Trp Trp Glu Val Leu Ala Glu Lys  
1 5 10

<210> 293

<211> 17  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 293  
Ser Ser Pro Gln Pro Leu Leu His Trp Trp Glu Met Met Thr Glu Pro  
1 5 10 15

Pro

<210> 294  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
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<210> 295  
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<212> PRT  
<213> Artificial Sequence

<220>  
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<210> 296  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
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<210> 297

<211> 17  
<212> PRT  
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<220>  
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<210> 299  
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<210> 300  
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<210> 301

<211> 13  
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<210> 302  
<211> 13  
<212> PRT  
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<210> 303  
<211> 15  
<212> PRT  
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<210> 304  
<211> 15  
<212> PRT  
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<210> 305  
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<210> 306

<211> 17

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<210> 308

<211> 17

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<210> 309

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<210> 310  
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<210> 311  
<211> 17  
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<211> 12  
<212> PRT  
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<210> 313  
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<212> PRT  
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1 5 10 15

Gly

<210> 314  
<211> 13  
<212> PRT  
<213> Artificial Sequence

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<223> Description of Artificial Sequence:Arbitrary  
peptide

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<210> 315  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 315  
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1 5 10

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	ART UNIT: 1627
	)	
PAIGE et al	)	Examiner: T. Wessendorf
	)	
Appln. No.: 09/429,331	)	Washington, D.C.
	)	
Filed: October 28, 1999	)	February 27, 2001
	)	
For: METHOD OF PREDICTING THE	)	Atty.Docket: PAIGE=1D
ABILITY OF COMPOUNDS TO	)	
MODULATE THE BIOLOGICAL	)	
ACTIVITY OF RECEPTORS	)	

SUPPLEMENTAL RESPONSE TO "SEQUENCE LISTING" REQUIREMENT

Honorable Commissioner of Patents  
Washington, D.C. 20231

Sir:

Supplementing the response filed February 20, 2001,  
please further amend the application as follows:

IN THE SPECIFICATION

At page 162, line 34, replace "K = C or T" with  
--K = G or T--.

Please replace the present page 237 with the  
enclosed substitute page, which provides SEQ ID NOS:316-360  
for the sequences on this page. If there was no page numbered  
"237" in the application as filed, please insert this page  
between pages "236" and "238".

The enclosed "Sequence Listing" pages 1, 4 and 79-90  
replace pages 1, 4 and 79 of the "Sequence Listing" submitted  
February 20, 2001.

In re Appln. No. 09/429,331

#### REMARKS

1. At the time the February 20, 2001, response was prepared, counsel's file copy of the specification was missing page 237. Hence, the sequences appearing on that page were not incorporated into the Sequence Listing filed on that date.

Since counsel received a postcard receipt (copy enclosed) acknowledging the filing of a 293 page specification, counsel assumes that page 237 was missing only from counsel's file copy and not from the original filed with the PTO.

If counsel is mistaken, inserting page 237 at this time does not constitute the addition of "new matter". At page 1, lines 3-10, it is stated:

This application is a continuation-in-part of PCT/US99/06664, filed March 26, 1999, which is a continuation-in-part of 60/115,345, filed January 8, 1999, which is a continuation-in-part of Paige et al., Serial No. 60/099,656, filed September 9, 1998, which is a continuation-in-part of Paige et al., Serial No. 60/082,756, filed April 23, 1998. All of the above applications are hereby incorporated-by-reference.

Page 237 of this application sets forth Table 1, and part of Table 2. It is identical to page 152 of the above-identified, incorporated-by-reference PCT application. Hence, even if inadvertently omitted from this application as filed, it can be provided without adding "new matter".

In re Appln. No. 09/429,331

2. At page 162, we correct an obvious typographical error in the identification of ambiguous nucleotide "K", which denotes "G" or "T", not "C" or "T". See MPEP §2422, page 2400-20, Table 1. The NNK codon, specified at page 162, line 33, encodes all 20 amino acids. If the third position were C/T (Y), instead of G/T (K), then Met (ATG), Trp (TGG), Ser (TCA, TCG), Gln (CAA, CAG), Lys (AAA, AAG) and Gly (GAA, GAG) would not be encoded, inconsistent with the identification of X in LXXLL (page 162, line 29) as "any AA". This error was also corrected on page 4 of the Sequence Listing at <223> in SEQ ID NO:14.

3. Applicants hereby submit the following:

[XX] an amendment to the paper copy of the "Sequence Listing" submitted on February 20, 2001, the amendment being in the form of substitute pages 1 and 79 and new pages 80-90;

[XX] the Sequence Listing in computer readable form, complying with §1.821(e) and §1.824, including, if an amendment to the paper copy is submitted, all previously submitted data with the amendment incorporated therein;

[XX] 4. The description has been amended to comply with §1.821(d).

In re Appln. No. 429,331

5. The undersigned attorney or agent hereby states as follows:

- (a) this submission is not believed to include new matter [§1.821(g)];
- (b) the contents of the paper copy (as amended, if applicable) and the computer readable form of the Sequence Listing, are believed to be the same [§1.821(f) and §1.825(b)];
- (c) if the paper copy has been amended, the amendment is believed to be supported by the specification and is not believed to include new matter [§1.825(a)]; and

Respectfully submitted,

BROWDY AND NEIMARK  
Attorneys for Applicant(s)

By: \_\_\_\_\_  
Iver P. Cooper  
Registration No. 28,005

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Washington, D.C. 20001  
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Facsimile No.: (202) 737-3528  
F:\N\Nova\PaigalD\Pto\SequenceResponse.doc

Enclosures:

Paper Sequence Listing pp. 1,4 and 79-90  
Substitute CRF  
Substitute page 237  
Page 152 of PCT/US99/06664  
Copy of stamped postcard receipts

1 of 2

FILED: 28 October 1999APPLICANT(S): PAIGE et al.

THE PATENT AND TRADEMARK OFFICE STAMP HEREON  
ACKNOWLEDGES RECEIPT OF THE ABOVE IDENTIFIED  
APPLICATION, INCLUDING THE FOLLOWING PAPERS:

- ☐ FEES \$ \_\_\_\_\_ (CH # \_\_\_\_\_)
- ☐ RULE 60 CONTINUATION, WITH:
- ☐ COPY OF ORIGINAL APPLICATION (\_\_\_\_\_ pages)
  - ☐ COPY OF ORIGINAL DECLARATION
  - ☐ COPY OF ORIGINAL DRAWINGS (if any) (\_\_\_\_\_ sheets)
- ☐ RULE 60 DIVISIONAL, WITH:
- ☐ COPY OF ORIGINAL APPLICATION (\_\_\_\_\_ pages)
  - ☐ COPY OF ORIGINAL DECLARATION
  - ☐ COPY OF ORIGINAL DRAWINGS (if any) (\_\_\_\_\_ sheets)
- ☐ RULE 62 ☐ CONTINUATION ☐ DIVISIONAL ☐ CONTINUATION-IN-PART
- (Abandon Parent)
- ☐ INT'L PCT. APPLN. (\_\_\_\_\_ pages)
- ☐ APPT. OF AGENT ☐ FEE CALCULATION SHT.
- ☐ U.S. NAT'L PHASE OF INT'L APPLN. (\_\_\_\_\_ pages)
- ☐ OTHER \_\_\_\_\_

DOCKET NO.: PAIGE-10 (Nom)

PARENT CASE \_\_\_\_\_



- ☒ NEW ORIGINAL APPLICATION
- ☒ 293 pages
  - ☐ CONTINUATION-IN-PART
  - ☐ DESIGN APPLICATION
  - ☐ PLANT PATENT APPLICATION
  - ☒ 29 SHEETS OF DRAWINGS 21 FIG(S)
  - ☐ TRANSMITTAL LETTER
  - ☐ PRELIMINARY AMENDMENT
  - ☐ SMALL ENTITY STATEMENT(S)
  - ☐ INFORMATION DISCLOSURE
  - ☐ PRIORITY DOCUMENT(S)
  - ☐ ASSIGNMENT
  - ☐ DECLARATION

BCS

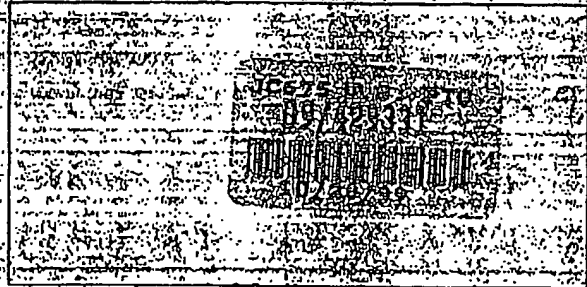
FILED: 28 October 1999APPLICANT(S): PAIGE et al.

THE PATENT AND TRADEMARK OFFICE STAMP HEREON  
ACKNOWLEDGES RECEIPT OF THE ABOVE IDENTIFIED  
APPLICATION, INCLUDING THE FOLLOWING PAPERS:

- ☐ FEES \$ \_\_\_\_\_ (CH # \_\_\_\_\_)
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  - ☐ COPY OF ORIGINAL DECLARATION
  - ☐ COPY OF ORIGINAL DRAWINGS (if any) (\_\_\_\_\_ sheets)
- ☐ RULE 60 DIVISIONAL, WITH:
- ☐ COPY OF ORIGINAL APPLICATION (\_\_\_\_\_ pages)
  - ☐ COPY OF ORIGINAL DECLARATION
  - ☐ COPY OF ORIGINAL DRAWINGS (if any) (\_\_\_\_\_ sheets)
- ☐ RULE 62 ☐ CONTINUATION ☐ DIVISIONAL ☐ CONTINUATION-IN-PART
- (Abandon Parent)
- ☐ INT'L PCT. APPLN. (\_\_\_\_\_ pages)
- ☐ APPT. OF AGENT ☐ FEE CALCULATION SHT.
- ☐ U.S. NAT'L PHASE OF INT'L APPLN. (\_\_\_\_\_ pages)
- ☐ OTHER \_\_\_\_\_

DOCKET NO.: PAIGE-10 (Nom)

PARENT CASE \_\_\_\_\_



- ☒ NEW ORIGINAL APPLICATION
- ☒ 293 pages
  - ☐ CONTINUATION-IN-PART
  - ☐ DESIGN APPLICATION
  - ☐ PLANT PATENT APPLICATION
  - ☒ 29 SHEETS OF DRAWINGS 21 FIG(S)
  - ☐ TRANSMITTAL LETTER
  - ☐ PRELIMINARY AMENDMENT
  - ☐ SMALL ENTITY STATEMENT(S)
  - ☐ INFORMATION DISCLOSURE
  - ☐ PRIORITY DOCUMENT(S)
  - ☐ ASSIGNMENT
  - ☐ DECLARATION

Initials: BCS ✓

WO 99/54728

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PCT/US99/06664

Table 1

Peptides the Bind to the Unliganded (unactivated) Estrogen Receptor		Sequence	Phage #
5		S R W E S P L G T W E W S R	4
		S A A P R T I S H Y L M G G	48
		S S W V R L S D F P W G V S R	1
		S S W D R L S D F P W G V S R	2
		S S W I R L R D L P W G E S R	3
10		S S W V L L R D L P W G S R	31
		S S W V V L R D L P W G S R	29
		S S C K W Y E K C S G L W S R	7
		S S G I C F F W D G C F E S R	35
		S R N L C F F W D D E Y C S R	41
15		H H H R H P A H P H T Y G G	47

Table 2

Peptides that Bind to the Estradiol Activated Receptor		Sequence	Phage #
20		S R A G L L S D L L E G K S R	1/2
		S S R S L L R D L L M V D S R	6
		S S N K L L Y N L L K M E S R	22
		S S K S L L L N L L S T P S R	23
		H S F P R E S L L V R L L Q G G	42
25		S R L E M L L R S E T D F S R	3
		S R L E E L L K W G S V T S R	11
		S R L E Q L L K E E F S Y S R	21
		S R L E Q L L R S E P D F S R	27
		S R L E D L L R A P F T T S R	28
30		S R L E S L L R F G Q L D S R	29
		S S R L L S L L V G D F N S R	19/20
		S R L E E L L L G T N R D S R	30
		S R L K E L L L L P T D L S R	15
		S R L E C L L E G R L N C S R	34
35		S S K L Y C L L D E S Y C S R	35
		S R L S C L L M G F E D C S R	36
		S S K L I R L L T S D E E L S R	37
		S S R L M E L L Q E G Q G W S R	40
		S S N H Q S S R L I E L L S R	4
40		S S R L W Q L L A S T D T S R	16
		S S N S M L W K L L A A P S R	13/14
		S S K T L W R L L E G E R S R	17
		S R A G P V L W G L L S E S R	32
		S S L T S R D F G S W Y A S R	5
45		S S W V R L S D F P W G V S R	24/25
		S S E Y C F Y D S A H C S R	33
		S R S L L E C H L M G N C S R	7
		S S E L L R W H L T R D T S R	8
		S R L E Y W L K W E P G P S R	12
50		S R S D S I L W R M L S E S R	31
		S S K G V L W R M L A E P V S R	38/39
		H S H G P L T L N L L R S S G	41
		S S A G G G A P A G S T P S R	26

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Table 1

Peptides the Bind to the Unliganded (unactivated)  
Estrogen Receptor

	Sequence	SEQ ID NO.	Phage #
5	S R W E S P L G T W E W S R	316	4
	S A A P R T I S H Y L M G G	317	48
	S S W V R L S D F P W G V S R	318	1
	S S W D R L S D F P W G V S R	319	2
	S S W I R L R D L P W G E S R	320	3
10	S S W V L L R D L P W G S R	321	31
	S S W V L R D L P W G S R	322	29
	S S C K W Y E K C S G L W S R	323	7
	S S G I C F F W D G C F E S R	324	35
	S R N L C F F W D D E Y C S R	325	41
15	H H H R H P A H P H T Y G G	326	47

Table 2

Peptides that Bind to the Estradiol Activated  
Receptor

	Sequence	SEQ ID NO.	Phage #
20	S R A G L L S D L L E G K S R	327	1/2
	S S R S L L R D L L M V D S R	328	6
	S S N K L L Y N L L K M E S R	329	22
	S S K S L L L N L L S T P S R	330	23
	H S F P R E S L L V R L L Q G G	331	42
25	S R L E M L L R S E T D F S R	332	3
	S R L E E L L K W G S V T S R	333	11
	S R L E Q L L K E E F S Y S R	334	21
	S R L E Q L L R S E P D F S R	335	27
	S R L E D L L R A P F T T S R	336	28
30	S R L E S L L R F G Q L D S R	337	29
	S S R L L S L L V G D F N S R	338	19/20
	S R L E E L L L G T N R D S R	339	30
	S R L K E L L L L P T D L S R	340	15
	S R L E C L L E G R L N C S R	341	34
35	S S K L Y C L L D E S Y C S R	342	35
	S R L S C L L M G F E D C S R	343	36
	S S K L I R L L T S D E E L S R	344	37
	S S R L M E L L Q E G Q G W S R	345	40
	S S N H Q S S R L I E L L S R	346	4
40	S S R L W Q L L A S T D T S R	347	16
	S S N S M L W K L L A A P S R	348	13/14
	S S K T L W R L L E G E R S R	349	17
	S R A G P V L W G L L S E S R	350	32
	S S L T S R D F G S W Y A S R	351	5
45	S S W V R L S D F P W G V S R	352	24/25
	S S E Y C F Y D S A H C S R	353	33
	S R S L L E C H L M G N C S R	354	7
	S S E L L R W H L T R D T S R	355	8
	S R L E Y W L K W E P G P S R	356	12
50	S R S D S I L W R M L S E S R	357	31
	S S K G V L W R M L A E P V S R	358	38/39
	H S H G P L T L N L L R S S G	359	41
	S S A G G G A P A G S T P S R	360	26

## SEQUENCE LISTING

<110> PAIGE, Lisa A.  
MCDONNELL, Donald P.  
CHANG, Ching Yu  
NORRIS, John  
HAMILTON, Paul T.  
FOWLKES, Dana M.  
BARNETT, Tom  
CHRISTIANSEN, Dale J.  
BUEHRER, Benjamin

<120> METHOD OF PREDICTING THE ABILITY OF COMPOUNDS TO  
MODULATE THE BIOLOGICAL ACTIVITY OF RECEPTORS

<130> PAIGE1D

<140> 09/429,331  
<141> 1999-10-28

<150> PCT/US99/06664  
<151> 1999-03-26

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<151> 1998-04-23

<150> 60/099,656  
<151> 1998-09-09

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<151> 1999-01-08

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<170> PatentIn Ver. 2.0

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Ser Ser Asn His Gln Ser Ser Arg Leu Ile Glu Leu Leu Ser Arg Ser  
1 5 10 15

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<210> 2  
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<212> PRT  
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Ser Ser Trp Asp Met His Gln Phe Phe Trp Glu Gly Val Ser Arg  
 1 5 10 15

&lt;210&gt; 12

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence:Arbitrary peptide

&lt;400&gt; 12

Ser Ser Pro Gly Ser Arg Glu Trp Phe Lys Asp Met Leu Ser Arg  
 1 5 10 15

&lt;210&gt; 13

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Description of Artificial Sequence:Arbitrary peptide

&lt;400&gt; 13

Ser Ser Leu Thr Ser Arg Asp Phe Gly Ser Trp Tyr Ala Ser Arg  
 1 5 10 15

&lt;210&gt; 14

&lt;211&gt; 88

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

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&lt;223&gt; Description of Artificial Sequence:DNA encoding random peptide library of Ex. 101.1

&lt;220&gt;

&lt;223&gt; N at each occurrence is A, C, G or T; K at each occurrence is G or T

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&lt;210&gt; 15

&lt;211&gt; 15

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

<212> PRT  
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peptide

<400> 313  
Ser Ser His Trp Ser Ser Asp Ser Ile Phe Pro Gly Phe Trp Tyr Ser  
1 5 10 15

Gly

<210> 314  
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peptide

<400> 314  
Ser Arg Gly Gly Val Asp Leu Asp Ile Gly Asn Ser Ala  
1 5 10

<210> 315  
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peptide

<400> 315  
Glu Gly Glu Asp Val Arg Thr Arg Ile Ala Asn  
1 5 10

<210> 316  
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peptide

<400> 316  
Ser Arg Trp Glu Ser Pro Leu Gly Thr Trp Glu Trp Ser Arg  
1 5 10

<210> 317  
<211> 14

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peptide

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1 5 10

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peptide

<400> 318  
Ser Ser Trp Val Arg Leu Ser Asp Phe Pro Trp Gly Val Ser Arg  
1 5 10 15

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<211> 15  
<212> PRT  
<213> Artificial Sequence

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peptide

<400> 319  
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1 5 10 15

<210> 320  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 320  
Ser Ser Trp Ile Arg Leu Arg Asp Leu Pro Trp Gly Glu Ser Arg  
1 5 10 15

<210> 321  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 321  
Ser Ser Trp Val Leu Leu Arg Asp Leu Pro Trp Gly Ser Arg  
1 5 10

<210> 322  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 322  
Ser Ser Trp Val Val Leu Arg Asp Leu Pro Trp Gly Ser Arg  
1 5 10

<210> 323  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 323  
Ser Ser Cys Lys Trp Tyr Glu Lys Cys Ser Gly Leu Trp Ser Arg  
1 5 10 15

<210> 324  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 324  
Ser Ser Gly Ile Cys Phe Phe Trp Asp Gly Cys Phe Glu Ser Arg  
1 5 10 15

<210> 325  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 325  
Ser Arg Asn Leu Cys Phe Phe Trp Asp Asp Glu Tyr Cys Ser Arg  
1 5 10 15

<210> 326  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 326  
His His His Arg His Pro Ala His Pro His Thr Tyr Gly Gly  
1 5 10

<210> 327  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 327  
Ser Arg Ala Gly Leu Leu Ser Asp Leu Leu Glu Gly Lys Ser Arg  
1 5 10 15

<210> 328  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 328  
Ser Ser Arg Ser Leu Leu Arg Asp Leu Leu Met Val Asp Ser Arg  
1 5 10 15

<210> 329  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 329

Ser Ser Asn Lys Leu Leu Tyr Asn Leu Leu Lys Met Glu Ser Arg  
1 5 10 15

&lt;210&gt; 330

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 330

Ser Ser Lys Ser Leu Leu Asn Leu Leu Ser Thr Pro Ser Arg  
1 5 10 15

&lt;210&gt; 331

&lt;211&gt; 16

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 331

His Ser Phe Pro Arg Glu Ser Leu Leu Val Arg Leu Leu Gln Gly Gly  
1 5 10 15

&lt;210&gt; 332

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 332

Ser Arg Leu Glu Met Leu Leu Arg Ser Glu Thr Asp Phe Ser Arg  
1 5 10 15

&lt;210&gt; 333

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 333

Ser Arg Leu Glu Glu Leu Leu Lys Trp Gly Ser Val Thr Ser Arg  
1 5 10 15

<210> 334

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 334

Ser Arg Leu Glu Gln Leu Leu Lys Glu Glu Phe Ser Tyr Ser Arg  
1 5 10 15

<210> 335

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 335

Ser Arg Leu Glu Gln Leu Leu Arg Ser Glu Pro Asp Phe Ser Arg  
1 5 10 15

<210> 336

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 336

Ser Arg Leu Glu Asp Leu Leu Arg Ala Pro Phe Thr Thr Ser Arg  
1 5 10 15

<210> 337

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 337

Ser Arg Leu Glu Ser Leu Leu Arg Phe Gly Gln Leu Asp Ser Arg  
1 5 10 15

<210> 338  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 338  
Ser Ser Arg Leu Leu Ser Leu Leu Val Gly Asp Phe Asn Ser Arg  
1 5 10 15

<210> 339  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 339  
Ser Arg Leu Glu Glu Leu Leu Leu Gly Thr Asn Arg Asp Ser Arg  
1 5 10 15

<210> 340  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 340  
Ser Arg Leu Lys Glu Leu Leu Leu Leu Pro Thr Asp Leu Ser Arg  
1 5 10 15

<210> 341  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 341  
Ser Arg Leu Glu Cys Leu Leu Glu Gly Arg Leu Asn Cys Ser Arg  
1 5 10 15

<210> 342  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 342  
Ser Ser Lys Leu Tyr Cys Leu Leu Asp Glu Ser Tyr Cys Ser Arg  
1 5 10 15

<210> 343  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 343  
Ser Arg Leu Ser Cys Leu Leu Met Gly Phe Glu Asp Cys Ser Arg  
1 5 10 15

<210> 344  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 344  
Ser Ser Lys Leu Ile Arg Leu Leu Thr Ser Asp Glu Glu Leu Ser Arg  
1 5 10 15

<210> 345  
<211> 16  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 345  
Ser Ser Arg Leu Met Glu Leu Leu Gln Glu Gly Gln Gly Trp Ser Arg  
1 5 10 15

<210> 346  
<211> 15

<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 346  
Ser Ser Asn His Gln Ser Ser Arg Leu Ile Glu Leu Leu Ser Arg  
1 5 10 15

<210> 347  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 347  
Ser Ser Arg Leu Trp Gln Leu Leu Ala Ser Thr Asp Thr Ser Arg  
1 5 10 15

<210> 348  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 348  
Ser Ser Asn Ser Met Leu Trp Lys Leu Leu Ala Ala Pro Ser Arg  
1 5 10 15

<210> 349  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 349  
Ser Ser Lys Thr Leu Trp Arg Leu Leu Glu Gly Glu Arg Ser Arg  
1 5 10 15

<210> 350  
<211> 15  
<212> PRT  
<213> Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 350

Ser Arg Ala Gly Pro Val Leu Trp Gly Leu Leu Ser Glu Ser Arg  
1 5 10 15

&lt;210&gt; 351

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 351

Ser Ser Leu Thr Ser Arg Asp Phe Gly Ser Trp Tyr Ala Ser Arg  
1 5 10 15

&lt;210&gt; 352

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 352

Ser Ser Trp Val Arg Leu Ser Asp Phe Pro Trp Gly Val Ser Arg  
1 5 10 15

&lt;210&gt; 353

&lt;211&gt; 14

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 353

Ser Ser Glu Tyr Cys Phe Tyr Asp Ser Ala His Cys Ser Arg  
1 5 10

&lt;210&gt; 354

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 354

Ser Arg Ser Leu Leu Glu Cys His Leu Met Gly Asn Cys Ser Arg  
1 5 10 15

<210> 355

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 355

Ser Ser Glu Leu Leu Arg Trp His Leu Thr Arg Asp Thr Ser Arg  
1 5 10 15

<210> 356

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 356

Ser Arg Leu Glu Tyr Trp Leu Lys Trp Glu Pro Gly Pro Ser Arg  
1 5 10 15

<210> 357

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

<400> 357

Ser Arg Ser Asp Ser Ile Leu Trp Arg Met Leu Ser Glu Ser Arg  
1 5 10 15

<210> 358

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 358

Ser Ser Lys Gly Val Leu Trp Arg Met Leu Ala Glu Pro Val Ser Arg  
1 5 10 15

&lt;210&gt; 359

&lt;211&gt; 16

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 359

His Ser His Gly Pro Leu Thr Leu Asn Leu Leu Arg Ser Ser Gly Gly  
1 5 10 15

&lt;210&gt; 360

&lt;211&gt; 15

&lt;212&gt; PRT

&lt;213&gt; Artificial Sequence

&lt;220&gt;

<223> Description of Artificial Sequence:Arbitrary  
peptide

&lt;400&gt; 360

Ser Ser Ala Gly Gly Gly Ala Pro Ala Gly Ser Thr Pro Ser Arg  
1 5 10 15